

# FINAL DEVELOPMENT PLANS

## SITE DATA

PARCEL ID NO.	05-21-28-0000-00-022, 056, 057, 058, 059, 060, 061, 062, 063, 064, 065, 066, 067, 068, 069, 070, 071		
FUTURE LAND USE	RESIDENTIAL LOW		
ZONING	R-3		
ADJACENT LAND USE	NORTH: RESIDENTIAL LOW	EAST: PUBLIC RIGHT OF WAY	
	SOUTH: RESIDENTIAL LOW	WEST: RESIDENTIAL LOW	
ADJACENT ZONING	NORTH: PR	EAST: PUBLIC RIGHT OF WAY	
	SOUTH: PUD	WEST: PUD	
ACREAGE/SQUARE FOOTAGE	ACRES: 5.59	SF: 243,343	
BUILDING HEIGHT	PROPOSED: 35 FEET	MAX: 35 FEET	
DENSITY	PROPOSED: 2.68 DU/AC		
BUILDING SETBACKS	PROPOSED: FRONT: 25' SIDE: 7.5' REAR: 20' CORNER: 25'		
	REQUIRED: FRONT: 25' SIDE: 7.5' REAR: 20' CORNER: 25'		
TREE BANK MITIGATION FEE	N/A		
WAIVER REQUEST	N/A		
VARIANCE REQUEST	N/A		

## LEGAL DESCRIPTION

THE SOUTH 198.00 FEET OF THE NORTH 3/4 OF THE EAST 1/2 OF THE NORTHEAST 1/4 OF SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; LESS THE WEST 12 FEET THEREOF AND LESS AND EXCEPT ROAD RIGHT-OF-WAY ON THE EAST.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE EAST 1/4 CORNER OF SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; THENCE RUN N 02°25'40"E ALONG THE EAST LINE OF NORTHEAST 1/4 SAID SECTION 5, A DISTANCE OF 663.59 FEET TO THE SOUTHEAST CORNER OF THE NORTH 3/4 OF THE NORTHEAST 1/4 OF SAID SECTION 5; THENCE RUN N 87°40'52"W ALONG THE SOUTH LINE OF SAID NORTH 3/4 A DISTANCE OF 80.00 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF VICK ROAD (80' RIGHT-OF-WAY) FOR A POINT OF BEGINNING; THENCE CONTINUE N 87°40'52"W ALONG SAID SOUTH LINE OF THE NORTH 3/4 OF THE NORTHEAST 1/4 OF AFORESAID SECTION 5 A DISTANCE OF 1228.88 FEET TO THE SOUTHEAST CORNER OF TRACT "E", THE COURTYARDS PHASE TWO, AS RECORDED IN PLAT BOOK 31, PAGES 63 & 64, ORANGE COUNTY, FLORIDA; THENCE RUN N 02°21'04"E ALONG THE EAST LINE OF SAID "TRACT "E" 198.00 FEET TO THE SOUTHERLY LINE OF LOT 45, OF SAID "THE COURTYARDS PHASE TWO"; THENCE RUN S 87°40'52"E ALONG THE SOUTHERLY LINES OF LOTS 24 THRU 45, OF SAID "THE COURTYARDS PHASE TWO" 1229.14 FEET TO THE AFORESAID WESTERLY RIGHT-OF-WAY LINE OF VICK ROAD; THENCE RUN S 02°25'40"W ALONG SAID WESTERLY RIGHT-OF-WAY LINE 198.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 5.59 ACRES MORE OR LESS.

## NOTE:

LETTER SHALL BE OBTAINED FROM THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWWC) REGARDING MANAGEMENT PLAN FOR ENDANGERED SPECIES, PRIOR TO ANY CONSTRUCTION ACTIVITIES ON SITE.

# ZARABROOKE SUBDIVISION

AT  
VICK ROAD AND WEST MARTIN STREET  
APOPKA, FLORIDA  
ORANGE COUNTY

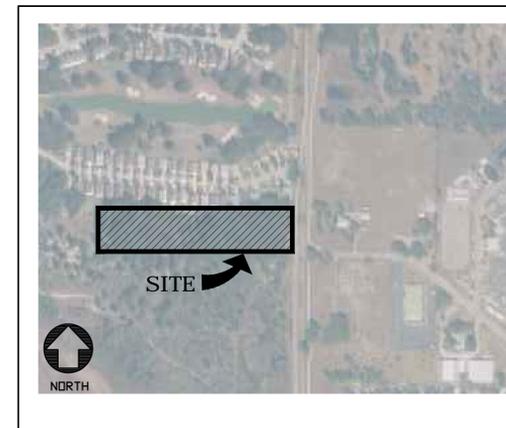
FOR

OWNER  
ZARABROOKE, LLC  
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PH. (407) 645-4500

CIVIL ENGINEER  
LOCHRANE ENGINEERING, INC.  
201 SOUTH BUMBY AVENUE  
ORLANDO, FLORIDA 32803  
PH. (407) 896-3317



VICINITY MAP



AERIAL PHOTO

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## SHEET INDEX

SHEET NO.	DWGNO	TITLE
1	C0.0	COVER SHEET
2	C0.1	GENERAL NOTES, ABBREVIATIONS & SYMBOLS
3	C0.2	MASTER DEVELOPMENT PLAN
4	C0.3	EROSION CONTROL & TREE PROTECTION PLAN
5	C0.4	EROSION CONTROL & TREE PROTECTION DETAILS
6	C0.5	DEMOLITION PLAN
7	C1.0	LAYOUT GEOMETRY PLAN
8	C1.1	PROJECT ENTRANCE & OFF-SITE TURN LANE IMPROVEMENTS
9	C2.0	GRADING AND DRAINAGE PLAN
10	C2.1	DETENTION POND PLAN, SECTIONS & DETAILS
11	C3.0	UTILITY PLAN
12	C4.1	PLAN & PROFILE
13	C4.2	PLAN & PROFILE
14	C5.1	PAVEMENT DETAILS
15	C5.2	SITE DETAILS
16	C5.3	UTILITY DETAILS
17	C5.4	UTILITY DETAILS
18	L-1	LANDSCAPE PLAN (PREPARED BY R. MILLER ARCHITECTURE)
19	L-2	IRRIGATION PLAN (PREPARED BY R. MILLER ARCHITECTURE)
20	1	BOUNDARY & TOPOGRAPHIC SURVEY (PREPARED BY HLSM, LLC)
21	2	BOUNDARY & TOPOGRAPHIC SURVEY (PREPARED BY HLSM, LLC)
22	1	PLAT (PREPARED BY HLSM, LLC)

JOB #:	1701220
PREL. MGR.:	EGL
DESIGNER:	EGL
CHECKED:	JM

ENGINEER  
EDGARDO GARCIA-LUNA, P.E.  
FL. LIC. #78932

DATE: Jan. 04, 2018

NO.	DATE	REVISIONS
1	01/08/17	CITY OF APOPKA REVISIONS
2	10/28/17	CITY OF APOPKA REVISIONS
3	10/24/17	SURVIMD REVISIONS

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FL. LIC. #

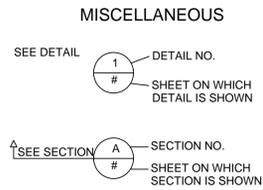
ZARABROOKE  
at  
VICK & W. MARTIN STREET  
APOPKA, FLORIDA  
for  
ZARABROOKE, LLC

COVER SHEET

201 SOUTH BUMBY AVENUE | ORLANDO, FL 32803  
PH: (407) 896-3317 | FAX: (407) 896-5197  
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CERTIFICATE OF AUTHORIZATION # 008585

**LOCHRANE**  
Consulting Engineers • Surveyors  
An **ENVIS** Company

STANDARD SYMBOLS FOR EXISTING/PROPOSED TOPOGRAPHY AND UTILITIES					
DESCRIPTION	EXISTING	PROPOSED	DESCRIPTION	EXISTING	PROPOSED
GRASSED SWALE OR PAVT. FLOW LINE			WATER METER	1" W.M.	1" W.M.
DRAINAGE FLOW ARROWS			BLOW OFF	B.O.	B.O.
RIP-RAP SAND CEMENT BAGS			FITTINGS	TEE BENDCROSSWYE	TEE BENDCROSSWYE
FENCE/GATE			REDUCER		
SOIL BORING			PLUG OR FLANGE		
MISC. SHRUB OR HEDGE			SEWER LATERALS	SAN 8	SAN 8
TREE	o 16" TREE	• 16" TREE	WATER SERVICES	WM 8	WM 8
B.M. OR T.B.M.			DIRECTION ARROW STRAIGHT		
LIGHT POLE			DIRECTION ARROW LEFT TURN		
TELEPHONE POLE			DIRECTION ARROW RIGHT TURN		
POWER POLE			WATER MAIN	WM	WM
COMBINATION POLE			RECLAIM WATER MAIN	RW	RW
SIGN			SANITARY SEWER	SAN	SAN
MANHOLE			STORM SEWER		
CURB INLET			UNDERDRAIN	UD 6	UD 6
FIRE HYDRANT			UNDERGROUND TELEPHONE CABLE	TEL	TEL
GATE VALVE			UNDERGROUND CABLE T.V.	CATV	CATV
GAS MARKER			CONTOUR LINE	100	100
CLEAN OUT	C.O.	C.O.	SILT FENCE	SF	SF



- ### GENERAL NOTES
- GOVERNING STANDARDS AND SPECIFICATIONS ON THIS PROJECT ARE CONSIDERED THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) DESIGN STANDARDS (2011 EDITION), FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2013 EDITION), AND CITY OF APOPKA UTILITIES DESIGN AND CONSTRUCTION STANDARDS MANUAL (2014 EDITION).
  - PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL POST AT THE JOB SITE ALL REQUIRED CONSTRUCTION PERMITS AND A COPY OF THE RECORDED "NOTICE OF COMMENCEMENT".
  - CONTRACTOR SHALL PROVIDE EROSION & SEDIMENT CONTROL MEASURE IN ACCORDANCE TO CONSTRUCTION PLANS, REFER TO EROSION CONTROL & TREE PROTECTION PLAN, SHEET C0.3.
  - ALL PERSONAL PROPERTY, EXCEPT MAIL BOXES LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY (NOT RELOCATED BY THE PROPERTY OWNER), SHALL BE REMOVED BY THE CONTRACTOR AS NECESSARY TO CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE CONSTRUCTION PLANS.
  - THE DISPOSAL OF EXCESS EARTHWORK MATERIALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. APPROVAL OF DISPOSAL SITES SHALL BE OBTAINED FROM THE CITY OF APOPKA PRIOR TO DISPOSAL.
  - ALL EXISTING TREES AND STUMPS WITHIN THE RIGHT-OF-WAY AND LIMIT OF THE PROJECT ARE TO BE REMOVED AS CLEARING AND GRUBBING UNLESS OTHERWISE DIRECTED.
  - SEED AND MULCH ALL DISTURBED AREAS NOT COVERED BY SOD UNLESS OTHERWISE DIRECTED.
  - ALL PAVEMENT OFFSETS SHOWN ARE TO THE PROPOSED CENTERLINE OF CONSTRUCTION, AS WHERE RADIUS DIMENSIONS ARE TO THE EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED.
  - THE CONTRACTOR SHALL PERFORM HIS WORK IN ACCORDANCE WITH THE REQUIREMENTS OF "PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION", EXCLUDING ITEMS SPECIFIED ELSEWHERE. ENVIRONMENTAL CONTROLS SHALL BE USED AT LOCATIONS DESIGNATED IN THE PLANS AND/OR DESIGNATED BY THE ENGINEER.
  - THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES ARE BASED ON AVAILABLE RECORDS AND SURVEYS, BUT IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR SHALL MAKE HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERE TO, AND IS RESPONSIBLE FOR COORDINATING UTILITY RELOCATION.
  - PRIOR TO ORDERING DRAINAGE STRUCTURES, THE CONTRACTOR SHALL DETERMINE IF DRAINAGE UTILITY CONFLICTS EXIST. INFORMATION ABOUT POSSIBLE CONFLICTS SHALL BE SUBMITTED TO THE ENGINEER AS SOON AS POSSIBLE AFTER DISCOVERY OF SUCH FOR RESOLUTION.
  - THE CONTRACTOR SHALL NOTIFY ALL GAS UTILITY COMPANIES A MINIMUM OF TWO WORKING DAYS PRIOR TO EXCAVATION AS REQUIRED BY CHAPTER 77-15 OF THE FLORIDA STATUTES.
  - ALL INLET/MANHOLE - PIPE JOINTS SHALL BE FILLED WITH NON-SHRINK GROUT, COVERED WITH AN ASPHALTIC MASTIC COATING, AND WRAPPED WITH A FILTER FABRIC MATERIAL PER SECTION 13.03.03 OF THE ORANGE COUNTY ROAD CONSTRUCTION SPECIFICATIONS.
  - ALL CURB INLETS, DITCH BOTTOM INLETS, AND MANHOLES SHALL HAVE TRAFFIC BEARING FRAMES AND COVERS OR GRATES MEETING AASHTO-20 LOADING REQUIREMENTS.
  - CHANGES OF PIPE INVERTS NOT EXCEEDING PLUS OR MINUS ONE FOOT WILL NOT BE CONSIDERED AS A BASIS FOR ADDITIONAL COMPENSATION FOR THE PERTINENT PIPE BID ITEM OR FOR MODIFICATION OF PRECAST STRUCTURES.
  - ALL BENCHMARKS (IRONS AND MONUMENTS) SHOWN IN THE CONSTRUCTION PLANS, OR FOUND, SHALL BE PRESERVED. THOSE SHOWN IN PROPOSED PAVEMENT SHALL BE PROTECTED WITH A CAST IRON VALVE BOX.
  - PUBLIC LAND CORNERS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED OR DISTURBED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER, WITHOUT DELAY, BY TELEPHONE. THE CONTRACTOR SHALL PROVIDE WRITTEN FOLLOW UP CONFIRMATION WITHIN 48 HOURS OF TELEPHONE NOTIFICATION.
  - PRIOR TO BEGINNING OF ANY CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A SET OF FIELD NOTES VERIFYING THE BENCHMARK ELEVATIONS AND THE REFERENCE POINT CONNECTIONS ON THE PLAN AND PROFILE VIEW SHEETS, AND/OR A SET OF FIELD NOTES FOR ALL ADDITIONAL BENCHMARK AND REFERENCE POINT CONNECTIONS PROPOSED TO BE USED IN CONSTRUCTING THE PROJECT WITH THEIR LOCATION, DESCRIPTION AND ELEVATION, BASED ON NORTH AMERICAN VERTICAL DATUM (NAVD83). ALL SUBMITTALS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA.
  - WITHIN 21 CALENDAR DAYS AFTER NOTICE TO PROCEED, THE CONTRACTOR SHALL STAKE THE PUBLIC RIGHT-OF-WAY AT 50 FOOT INTERVALS AND THE RIGHT-OF-WAY BENCHMARKS WITH CORRELATIONS SHOWN ON THE STAKES. NO INVOICE FOR PAYMENT FOR MOBILIZATION WILL BE PROCESSED UNTIL THE RIGHT-OF-WAY HAS BEEN STAKED TO THE SATISFACTION OF THE ENGINEER.
  - ANY UNITED STATES CODE (USC) AND NATIONAL GEODETIC SURVEY (NGS) MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF IN DANGER OF DAMAGE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER, AND BOTH SHALL NOTIFY: STATE GEODETIC ADVISOR, NOAA 3900 COMMONWEALTH BLVD. - MS105 TALLAHASSEE, FL PHONE (850) 245-2606
  - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ACQUIRE ALL NECESSARY RIGHT-OF-WAY AND MAINTENANCE OF TRAFFIC PERMITS. THE CITY WILL WAIVE ALL PERMITS REQUIRED FOR CONSTRUCTION ACTIVITIES WITHIN THE LIMITS OF PUBLIC RIGHT-OF-WAY OWNED AND MAINTAINED BY THE CITY OF APOPKA. FOR CONSTRUCTION ACTIVITY WITHIN THE LIMITS OF PUBLIC RIGHT-OF-WAY MAINTAINED BY THE CITY OWNED BY ORANGE COUNTY OR THE STATE OF FLORIDA, THE CONTRACTOR SHALL ACQUIRE THE REQUIRED PERMITS FROM THE AGENCIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND IN-HAND BEFORE BEGINNING ANY CONSTRUCTION.
  - THE LOCATION OF ALL EXISTING UTILITIES, STORM DRAINAGE SYSTEMS, AND TOPOGRAPHIC FEATURES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST AVAILABLE RECORDS AND SURVEYS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACCURACY. SHOULD A DISCREPANCY ARISE BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, WHICH WOULD APPRECIABLY AFFECT THE EXECUTION OF THESE PLANS, THE CONTRACTOR SHALL HALT CONSTRUCTION AND NOTIFY THE ENGINEER IMMEDIATELY.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE CITY, AND THE ENGINEER WITHIN 48 HOURS BEFORE ANY INSPECTIONS. ALSO, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL INSPECTION CRITERIA, SCHEDULES AND SIGNING SAID INSPECTIONS.
  - THE CONTRACTOR SHALL NOT EXCAVATE, REMOVE OR OTHERWISE DISTURB ANY MATERIAL, STRUCTURE OR PART OF A STRUCTURE WHICH IS LOCATED OUTSIDE THE LINES, GRADES OR GRADING SECTION, ESTABLISHED FOR THIS PROJECT, EXCEPT WHERE SUCH EXCAVATIONS OR REMOVAL IS PROVIDED OR IN THE CONTRACT CONSTRUCTION PLANS OR TECHNICAL SPECIFICATIONS.
  - ALL WORK AND ALL MATERIALS FURNISHED SHALL BE IN CONFORMITY WITH THE LINES, GRADES, GRADING SECTIONS, CROSS SECTIONS, DIMENSIONS, MATERIAL REQUIREMENTS, AND TESTING REQUIREMENTS THAT ARE SPECIFIED IN THE CONTRACT CONSTRUCTION PLANS OR TECHNICAL SPECIFICATIONS.
  - ALL WORK SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, ORDINANCES AND REGULATIONS.
  - APPARENT ERRORS, DISCREPANCIES OR OMISSIONS IN THE CONSTRUCTION PLANS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION BEFORE BIDDING.
  - AFTER COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE TO THE CITY A COMPLETED AS-BUILT PLAN ONE WEEK PRIOR TO THE FINAL INSPECTION. BEFORE THE FINAL ACCEPTANCE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM A SITE CLEANUP FOR THE REMOVAL OF TRASH, DEBRIS, EXCESS MATERIALS, AND EQUIPMENT TO PRESENT THE PROJECT SITE CLEAN AND IN GOOD ORDER.
  - NO EXTRA PAYMENTS SHALL BE ALLOWED FOR ANY WORK REQUIRED DUE TO MISUNDERSTANDING OF JOB OR SITE CONDITIONS AFFECTING THE WORK AS DESCRIBED IN THE TECHNICAL SPECIFICATIONS OR SHOWN ON THE CONSTRUCTION PLANS. THE CONTRACTOR SHALL NOT TAKE ADVANTAGE OF ANY APPARENT ERROR OR OMISSION IN THE CONSTRUCTION PLANS OR TECHNICAL SPECIFICATIONS AND THE ENGINEER SHALL BE PERMITTED TO MAKE CORRECTIONS AND INTERPRETATION AS MAY BE DEEMED NECESSARY FOR THE FULFILLMENT OF THE INTENT OF THE CONTRACT DOCUMENTS. BY ENTERING THE BIDDING PROCESS THE BIDDERS ACKNOWLEDGE ACCEPTANCE OF THESE CONDITIONS.
  - THE CONTRACTOR SHALL SUBMIT FOUR (4) SETS OF DETAILED SHOP DRAWINGS OF ALL MAJOR ITEMS PROPOSED FOR THIS PROJECT TO THE ENGINEER PRIOR TO ORDERING ANY OF THE EQUIPMENT OR MATERIAL. TWO (2) COPIES OF THE SHOP DRAWINGS WILL BE RETURNED TO THE CONTRACTOR. UPON THE CONTRACTOR'S RECEIPT OF APPROVED SHOP DRAWINGS FROM THE ENGINEER, THE CONTRACTOR MAY PROCEED WITH THE WORK.
  - THE CONTRACTOR SHALL COMPLY WITH THE LEGAL LOAD RESTRICTIONS IN HAULING OF MATERIALS IN PUBLIC ROADS BEYOND THE LIMITS OF CONSTRUCTION WORK. A SPECIAL PERMIT WILL NOT RELIEVE THE CONTRACTOR OF LIABILITY FOR DAMAGE WHICH MAY RESULT FROM THE MOVING OF MATERIAL AND EQUIPMENT.
  - DURING CONSTRUCTION, NO DIRECT DISCHARGE OF WATER TO DOWNSTREAM RECEIVING WATERS WILL BE ALLOWED. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING WATER QUALITY AND ROUTE DISCHARGE WATER IN SUCH A MANNER AS TO ADEQUATELY REMOVE SILT PRIOR TO RUNOFF FROM THE SITE.
  - CONNECTION TO EXISTING LINES TO WHICH UTILITY PIPE OF THE CONTRACT MUST CONNECT, THE FOLLOWING WORK SHALL BE PERFORMED:
    - EXPOSE BURIED LINES TO CONFIRM OR DETERMINE END CONNECTION, PIPE MATERIAL AND DIAMETER.
    - FURNISHING AND INSTALLING PIPING AND MAKING PROPER CONNECTIONS.
  - THE CONTRACTOR SHALL MAINTAIN, AT THE JOB SITE, A RECORD COPY OF CONSTRUCTION DRAWINGS AND SPECIFICATIONS ON WHICH ALL FIELD CHANGES ARE TO BE SHOWN. THESE "AS-BUILT" DOCUMENTS ARE TO BE MADE AVAILABLE TO OWNER/ENGINEER DURING CONSTRUCTION AND SHALL BE DELIVERED TO THE ENGINEER UPON COMPLETION OF THE PROJECT.
  - DEVELOPER SHALL BE RESPONSIBLE FOR THE PORTION OF THE TRAFFIC SIGNAL THAT SERVES ZARABROOKE COURT.

### ABBREVIATIONS

AASHO	AMERICAN ASSOC. OF STATE HIGHWAY OFFICIALS	C&G	CURB AND GUTTER	D	DEGREE OF CURVATURE	GA	GAUGE	L	LENGTH	PAVT	PAVEMENT	S	SOUTH
AASHTO	AMERICAN ASSOC. STATE HWY. OFFICIALS & TRANSPORTATION OFFICIALS	CAP	CORRUGATED ALUMINUM PIPE	DA	DRAINAGE AREA	GAL	GALLON	LAT	LATERAL	PCS	POLLUTION CONTROL STRUCTURE	SCHED	SCHEDULE
ASPH	ASPHALT	CB	CATCH BASIN	DBL	DOUBLE	GALV	GALVANIZED	LBS	POUNDS	PCC	POINT OF COMPOUND CURVE	SE	SOUTHEAST
ABD	ABANDONED	CBC	CONCRETE BOX CULVERT	DI	DROP INLET	GAR	GARAGE	LBR	LIMBEROCK BEARING RATIO	PEP	POLYETHYLENE PIPE	SECT	SECTION
AC	ACRE	CC	CENTER TO CENTER	DIA	DIAMETER	GIP	GALVANIZED IRON PIPE	LF	LINEAR FEET	PI	POINT OF INTERSECTION	SG	SUB-GRADE
ACP	ASBESTOS CEMENT PIPE	CEM	CEMENT	DIP	DUCTILE IRON PIPE	GM	GAS MAIN	LT	LEFT	P/L	PROPERTY LINE	SQL	SINGLE
ADDL	ADDITIONAL	CFS	CUBIC FEET PER SECOND	DMH	DROP MANHOLE	GPM	GALLONS PER MINUTE	LWL	LOW WATER LEVEL	POB	POINT OF BEGINNING	SHTG	SHEETING
ALT	ALTERNATE	CI	CAST IRON	DR	DRAIN	GR	GRADE	LDC	LAND DEVELOPMENT CODE	PC	POINT OF CURVE	SL	SLOPE
ALUM	ALUMINUM	CIP	CAST IRON PIPE	DWG	DRAWING	GRT	GRATE	POE	POINT OF ENTRY	POJ	PUSH ON JOINT	SPCG	SPACING
APPROX	APPROXIMATE	CV	CHECK VALVE	DRWY	DRIVEWAY	GRTG	GRATING	PP	POWER POLE	PP	PUSH ON JOINT	SPEC	SPECIFICATION
ARV	AIR RELEASE VALVE	CL	CLEARANCE	E	EAST	GSP	GALVANIZED STEEL PIPE	PRC	POINT OF REVERSE CURVE	PRP	PROPOSED	SQ FT	SQUARE FOOT
ARVV	AIR RELEASE VACUUM VALVE	CM	CONCRETE MONUMENT	EA	EACH	GV	GATE VALVE	PRM	PERMANENT REFERENCE MONUMENT	PROP	PROPOSED	SO	SQUARE
ASSEM	ASSEMBLY	CMP	CORRUGATED METAL PIPE	ECC	ECCENTRIC	GPH	GALLONS PER HOUR	PRV	PERMANENT REFERENCE MONUMENT	PROJ	PROJECT	SAN	SANITARY SEWER
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS	CMPA	CORRUGATED METAL PIPE ARCH	EL	ELEVATION	HOA	HOMEOWNER ASSOCIATION	PRVC	POINT OF REVERSE VERTICAL CURVE	MGD	MILLION GALLONS PER DAY	SST	STAINLESS STEEL
BCCMP	BITUMINOUS COATED CORRUGATED METAL PIPE CULVERT	CND	CONDUIT	ELEC	ELECTRIC	HP	HORSEPOWER	PSIG	POUNDS PER SQUARE INCH (GAUGE)	MH	MANHOLE	STA	STATION
BCAP	BITUMINOUS COATED PIPE ARCH CULVERT	CO	CLEAN OUT	ENC	ENCASEMENT	HT	HEIGHT	PT	POINT OF TANGENCY	MI	MILE	STD	STANDARD
BCPCMP	BITUMINOUS COATED AND PAVED CORRUGATED METAL PIPE CULVERT	COL	COLUMN	ENGR	ENGINEER	HWL	HIGH WATER LEVEL	PVC	POLYVINYL CHLORIDE	MJ	MECHANICAL JOINT	STL	STEEL
BCPPA	BITUMINOUS COATED AND PAVED PIPE ARCH CULVERT	CONC	CONCRETE	EOP	EDGE OF PAVEMENT	I	EXTERNAL ANGLE (DELTA)	Q	DISCHARGE (FLOW RATE)	MECH	MECHANICAL	STS	STORM SEWER
BFP	BACKFLOW PREVENTER	CONN	CONNECTION	EOS	END OF SURVEY	IN	INCHES	R	RADIUS	MFR	MANUFACTURE	SUPPT	SUPPORT
BIT	BITUMINOUS	CONST	CONSTRUCT	EOR	ENGINEER OF RECORD	INL	INLET	RNG	RANGE	MGD	MILLION GALLONS PER DAY	SW	SOUTHWEST
BHP	BREAK HORSEPOWER	CONTR	CONTRACTOR	EQU	EQUATION	INSTL	INSTALL	RCP	REINFORCED CONCRETE PIPE	MON	MONUMENT	S/W	SEWAGE
BL	BASE LINE	COR	CORNER	ERCP	ELLIPTIC REINFORCED CONCRETE PIPE	INTR	INTERIOR	RD	ROAD	MP	MILE POST	SYM	SYMMETRICAL
BLDG	BUILDING	CP	CONCRETE PIPE	EW	END WALL	IP	IRON PIPE	RED	REDUCER	NSHW	NORMAL SEASONAL HIGH WATER ELEVATION	STR	STRUCTURE
BLK	BLOCK	CPLG	COUPLING	EXCAV	EXCAVATION	INV	INVERT	REINF	REINFORCED	N	NORTH	T	TANGENT
BM	BENCHMARK	CR	CONTROL RADIUS	EXIST	EXISTING	JB	JUNCTION BOX	REQD	REQUIRED	N & C	NAIL AND CAP	TOB	TOP OF BANK
BO	BLOW-OFF	CTG	COATING	EXP	EXPANSION	JCT	JUNCTION	RT	RIGHT	NE	NORTHEAST	TBM	TEMPORARY BENCHMARK
BOC	BACK OF CURB	CTR	CENTER	EXT	EXTENSION	JT	JOINT	R/W	RIGHT-OF-WAY	NO	NUMBER	TC	TANGENT TO CURVE
BOT	BOTTOM	CTV	CABLE TELEVISION	FAB	FABRICATE	OC	ON CENTER	ROW	RIGHT-OF-WAY	NOM	NOMINAL	TCP	TERRA COTTA PIPE
BRG	BEARING	CULV	CULVERT	FOUND	FOUNDATION	OD	OUTSIDE DIAMETER	RTW	RIGHT-OF-WAY	NTS	NOT TO SCALE	TEL	TELEPHONE
BSP	BLACK STEEL PIPE	CY	CUBIC YARD	FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION	OPNG	OPENING	RTW	RIGHT-OF-WAY	NW	NORTHWEST	THK	THICKNESS
BV	BUTTERFLY VALVE			F.F.E.	FINISH FLOOR ELEVATION	OVFL	OVERFLOW	RTW	RIGHT-OF-WAY	NSHW	NORMAL SEASONAL HIGH WATER ELEVATION	TN	TON
BW	BARBED WIRE			F.G.	FINISH GRADE	OVHD	OVERHEAD	RETAINING WALL		OC	ON CENTER	TWP	TOWNSHIP
				FH	FIRE HYDRANT					OD	OUTSIDE DIAMETER	TYP	TYPICAL
				FIN	FINISH					OPNG	OPENING	UD	UNDERDRAIN
				FIT	FITTING					OPP	OPPOSITE	USC&GS	U.S. COASTAL & GEODETIC SURVEY (NOW NATIONAL GEODETIC SURVEY)
				FLG	FLANGE					OVFL	OVERFLOW	USGS	U.S. GEODETIC SURVEY
				FM	FORCEMAIN					OVHD	OVERHEAD	UTC	UNDERGROUND TELEPHONE CABLE
				FL	FLOW LINE							UTVC	UNDERGROUND TELEVISION CABLE
				FT	FEET OR FOOT							UELEC	UNDERGROUND ELECTRICAL CABLE
												YDS	YARDS

JOB # 1701220  
 ENGINEER: EDGARDO GARCIA, P.E.  
 PLJ MGR: EGL  
 DESIGNER: EGL  
 CHECKED: JM  
 DATE: JAN. 04, 2018

RECORD DRAWING  
 THIS RECORD DRAWING IS BASED ON THE RECORDS OF THE ORIGINAL CONTRACTOR. A REVIEW OF THE RECORDS OF THE ORIGINAL CONTRACTOR IS NECESSARY TO VERIFY THE ACCURACY OF THE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE RECORDS. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OF THE RECORDS.

REVISIONS  
 NO. DATE

ZARABROOKE  
 VICK & W. MARTIN STREET  
 APOPKA, FLORIDA  
 ZARABROOKE, LLC

GENERAL NOTES, ABBREVIATIONS & SYMBOLS

205 SOUTH BUNNY AVENUE (DALLAS), TX 75203  
 PH: (407) 986-3377 | FAX: (407) 986-9187  
 WWW.LOCHRANE.COM  
 CERTIFICATE OF AUTHORIZATION # 09032819  
 An WVS Company

DRAWING NO. C0.1  
 SHEET 2  
 OF 22

**SITE DATA:**

- TOTAL GROSS ACREAGE: 5.59 ACRES +/-
  - EXISTING ZONING: R-3, (5 UNITS/ACRE).
  - FUTURE LAND USE: RESIDENTIAL LOW (0-5 DU/AC)
  - WATER SERVICE: CITY OF APOPKA PUBLIC SERVICES
- WATER DEMAND:  
FIRE FLOW: ON-SITE FIRE HYDRANTS MIN. OF 1000 GPM PER HYDRANT
- SANITARY SEWER SERVICE: CITY OF APOPKA PUBLIC SERVICES.
  - LAND UTILIZATION:

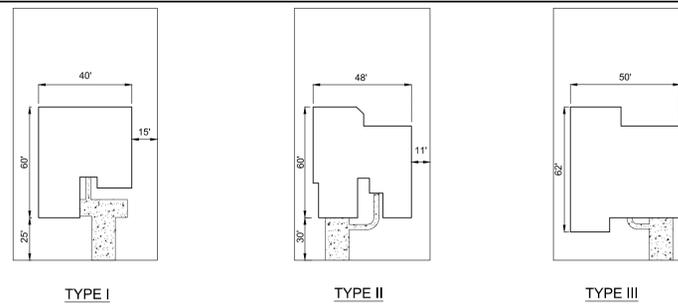
LAND USE	AREA (SF)	AREA (ACRES)	%
SINGLE-FAMILY RESIDENTIAL	148,143.83	3.401	60.9
TRACT 'A' (STORMWATER DETENTION POND)	35,935.90	0.825	14.8
TRACT 'B' (SCREEN WALL)	1,380.00	0.032	0.6
TRACT 'C' (ENTRANCE LANDSCAPE ISLAND)	552.75	0.013	0.2
TRACT 'D' (STORMWATER MAINTENANCE)	1,480.00	0.034	0.6
PUBLIC ROW (ZARABROOKE CT.)	55,851.00	1.282	23.0
<b>TOTAL</b>	<b>243,343.48</b>	<b>5.586</b>	<b>100.0</b>

**7. PVIOUS/IMPERVIOUS AREA:**

DESCRIPTION	AREA (SF)	AREA (ACRES)	%
PVIOUS (GREEN AREA)	153,523.48	3.524	63.1
IMPERVIOUS (BUILDING)	43,288.00	0.994	17.8
IMPERVIOUS (PAVERS AND SIDEWALK)	17,216.00	0.395	7.1
IMPERVIOUS (ROADWAY)	29,316.00	0.673	12.0
<b>TOTAL</b>	<b>243,343.48</b>	<b>5.586</b>	<b>100.0</b>

**INDIVIDUAL LOT INFORMATION**

LOT NO.	LOT FRONTAGE (LF)	LOT AREA (SF)
1	69.00	9,808.62
2	71.59	9,835.00
3	70.00	10,360.00
4	70.00	10,360.00
5	70.00	10,360.00
6	70.00	10,360.00
7	70.00	10,360.00
8	70.00	10,360.00
9	70.00	10,360.00
10	70.00	10,360.00
11	70.00	10,360.00
12	90.00	11,260.00
13	92.98	11,000.31
14	54.97	12,999.90
<b>TOTAL</b>	<b>148,143.83</b>	

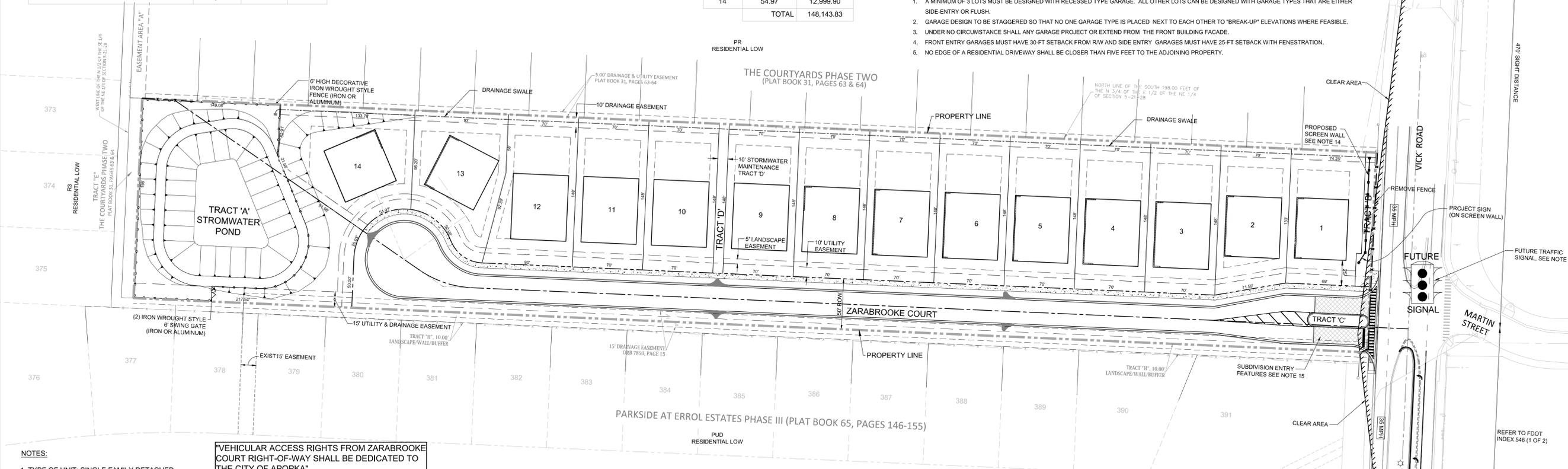


\* ALL UNITS WILL PROVIDE MIN. 2 CAR GARAGE

**TYPICAL BUILDING LAYOUTS**  
NTS

**NOTES:**

- A MINIMUM OF 3 LOTS MUST BE DESIGNED WITH RECESSED TYPE GARAGE. ALL OTHER LOTS CAN BE DESIGNED WITH GARAGE TYPES THAT ARE EITHER SIDE-ENTRY OR FLUSH.
- GARAGE DESIGN TO BE STAGGERED SO THAT NO ONE GARAGE TYPE IS PLACED NEXT TO EACH OTHER TO 'BREAK-UP' ELEVATIONS WHERE FEASIBLE.
- UNDER NO CIRCUMSTANCE SHALL ANY GARAGE PROJECT OR EXTEND FROM THE FRONT BUILDING FACADE.
- FRONT ENTRY GARAGES MUST HAVE 30-FT SETBACK FROM RW AND SIDE ENTRY GARAGES MUST HAVE 25-FT SETBACK WITH FENESTRATION.
- NO EDGE OF A RESIDENTIAL DRIVEWAY SHALL BE CLOSER THAN FIVE FEET TO THE ADJOINING PROPERTY.



**NOTES:**

- TYPE OF UNIT: SINGLE FAMILY DETACHED
- MINIMUM NET LIVING AREA: 1,800 SF
- MINIMUM BUILDING SETBACKS:  
FRONT: 25 FEET  
REAR: 20 FEET  
SIDE: 7.5 FEET (25 FEET, CORNER LOT) (15' BETWEEN BUILDINGS)  
SIDE STREET: 25 FEET
- MAXIMUM BUILDING HEIGHT: 35 FEET
- MAXIMUM BUILDING COVERAGE PER LOT: 3,575 SF (0.08 AC)
- MAXIMUM IMPERVIOUS SURFACE PER LOT 3,825 SF (0.09 AC)
- MAXIMUM NUMBER OF LOTS: 15
- MINIMUM LOT SIZE REQUIREMENT: 7,500 SF (0.172 AC.)
- MINIMUM LOT WIDTH: 70 FEET
- MAXIMUM GROSS DENSITY: 15 LOTS / 5.59 AC. = 2.68 DU/AC
- ALL ROADS WITHIN THE SUBDIVISION WILL BE DEDICATED PUBLIC ROADS WITH 50' RIGHT-OF-WAY
- LANDSCAPE BUFFERS 10' MINIMUM.
- DUE TO THE NUMBER OF LOTS PROPOSED (LESS THAN 20) A PARK IS NOT REQUIRED TO BE PROVIDED PER THE CITY'S LDC.
- WALL WILL HAVE BRICK FINISH SIMILAR IN FINISH & COLOR TO EXISTING WALLS ALONG VICKY ROAD. COLUMNS WILL BE SPACED AT 12' INTERVALS. (REFER TO DETAIL ON SHEET C5.2).
- SUBDIVISION ENTRY WILL CONSIST OF ONE OR MORE OF THE FOLLOWING:  
A. EXTENSIVE LANDSCAPE / IRRIGATION AT ENTRY (TRACT 'C' MAINTAINED BY HOA).  
B. HARDSCAPE / PAVER DESIGN.  
C. DECORATIVE SUBDIVISION IDENTIFICATION SIGNAGE W/ LANDSCAPING.  
D. POSSIBLE ABOVE GROUND FEATURES AS DEEMED APPROPRIATE FOR STYLE / THEME OF SUBDIVISION.
- STREET LIGHT POLES AND FIXTURES WILL BE OF DECORATIVE TYPE MATCHING STYLE / THEME OF SUBDIVISION, AND SHALL BE PROVIDED BY DUKE ENERGY.
- STREET TREES SPACED AT 25' TO 30' ON CENTER (NOT INCLUDING LOT TREES) MEETING CITY'S MINIMUM REQUIREMENTS WILL BE SHOWN ON LANDSCAPE PLAN PROVIDED WITH THE FINAL DEVELOPMENT PLAN.
- TRACT 'A' WILL BE LANDSCAPED IN ADDITION TO THE DECORATIVE FENCE AS A MEANS OR MITIGATING THE RECTILINEAR SHADE OF THE POND. PERPETUAL MAINTENANCE WILL BE ADDRESSED BY THE HOA COVENANTS AND RESTRICTIONS.
- STREET TREES AND A CONTINUOUS HEDGE ALONG VICKY ROAD WILL BE PROVIDED PER CITY REQUIREMENTS AND SPACED AT 35' ON CENTER.
- ALL ABOVE GROUND UTILITY EQUIPMENT W/ IN EASEMENT WILL BE SCREENED BY LANDSCAPING PLAN - ON SITE / PRIVATE EQUIPMENT WHICH REQUIRES SCREENING WILL BE ADDRESSED BY THE HOA COVENANTS AND RESTRICTIONS.

"VEHICULAR ACCESS RIGHTS FROM ZARABROOKE COURT RIGHT-OF-WAY SHALL BE DEDICATED TO THE CITY OF APOPKA"

- IN LIEU OF CONSTRUCTING SIDEWALKS ON BOTH SIDES OF ZARABROOKE COURT 'A' DEVELOPER ELECTS TO CONTRIBUTE TO THE CITY'S SIDEWALK CONSTRUCTION FUND FOR THE EQUIVALENT OF 5,000 SF OF 4" SIDEWALK.
- ALL LANDSCAPE REQUIREMENTS INCLUDING MIN. DBH TREES PER LOT, ETC. MAY BE NECESSARILY UPGRADED OR ENHANCED BEYOND THE CITY'S MINIMUM STANDARDS IN ORDER TO MEET THE TREE REPLACEMENT REQUIREMENTS.
- LANDSCAPING CONSISTING OF UNDERSTORY TREES (HOLLY, ETC.) AND HEDGES WILL BE PROVIDED ALONG THE SOUTH PROPERTY LINE AND MAINTAINED BY THE HOA.
- LOT TREES (3 CANOPY, 1 UNDERSTORY) WILL BE PROVIDED AT TIME OF LOT DEVELOPMENT. CANOPY TREES WILL BE OF MAPLE, OAK OR SIMILAR VARIETY. LOT TREES WILL BE MINIMUM 3" DBH AT TIME OF PLANTING.
- STREET LIGHTS AND FIXTURES SHALL BE PROVIDED BY DUKE ENERGY. THE CITY OF APOPKA SHALL COVER THE COST FOR STANDARD LIGHT STYLE; THE DEVELOPER SHALL BE RESPONSIBLE FOR THE UPGRADE COST TO LED AND DECORATIVE LIGHTING.
- CITY OF APOPKA IS PLANNING TO CONSTRUCT A TRAFFIC SIGNAL AT THE INTERSECTION OF VICKY ROAD AND MARTIN STREET. ZARABROOKE, LLC WILL ENTER INTO A COST-SHARING AGREEMENT WITH THE CITY FOR THE ADDITION OF A WEST LEG OF THE INTERSECTION FOR ZARABROOKE COURT.
- STREET TREES SOUTH OF ZARABROOKE COURT WILL BE PLANTED AT TIME OF C.O. OF THE CORRESPONDING RESIDENTIAL LOTS ACROSS THE STREET.
- ARCHITECTURAL RENDERINGS FOR ALL RESIDENTIAL BUILDINGS MUST BE SUBMITTED TO, AND APPROVED BY THE COMMUNITY DEVELOPMENT DEPARTMENT BEFORE SUBMITTING FOR BUILDING PERMIT.
- DEVELOPER SHALL PROVIDE CODE, COVENANTS AND RESTRICTIONS (CCR) AND ALL ASSOCIATED HOME OWNER ASSOCIATION (H.O.A) DOCUMENTS TO THE CITY OF APOPKA DEVELOPMENT REVIEW COMMITTEE FOR REVIEW AND APPROVAL PRIOR TO DWELLING UNIT CONSTRUCTION AND THE RECORDING OF THE PLAT.



High-pressure sodium	100 watts
Mounting height	12'
Color	Black
Pole	Decorative concrete

**DUKE ENERGY OCALA MODEL  
OUTSIDE LIGHT POLE / FIXTURE**

ENGINEER: EDGARDO GARCIALUNA, P.E. FL. LIC. #76902

DATE: Feb. 20, 2018

PRJ. MGR.: EGL

DESIGNER: EGL

CHECKED: JM

RECORD DRAWING

DATE: 10/10/2017

NO: 1

REVISIONS

NO.	DATE	REVISIONS
1	10/10/2017	CITY OF APOPKA REVISIONS
2	10/28/17	CITY OF APOPKA REVISIONS
3	10/24/17	SURVIMID REVISIONS

ZARABROOKE

VICK & W. MARTIN STREET

APOPKA, FLORIDA

ZARABROOKE, LLC

ENGINEER: FL. LIC. #

201 SOUTH BUNNY AVENUE | ORLANDO, FL 32803

PH: (407) 888-3317 | FAX: (407) 888-9187

WWW.LOCHRANE.COM

CERTIFICATE OF AUTHORIZATION # 0082855

Feb. 20, 2018 - 10:16am

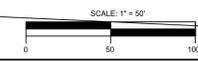
**LOCHRANE**

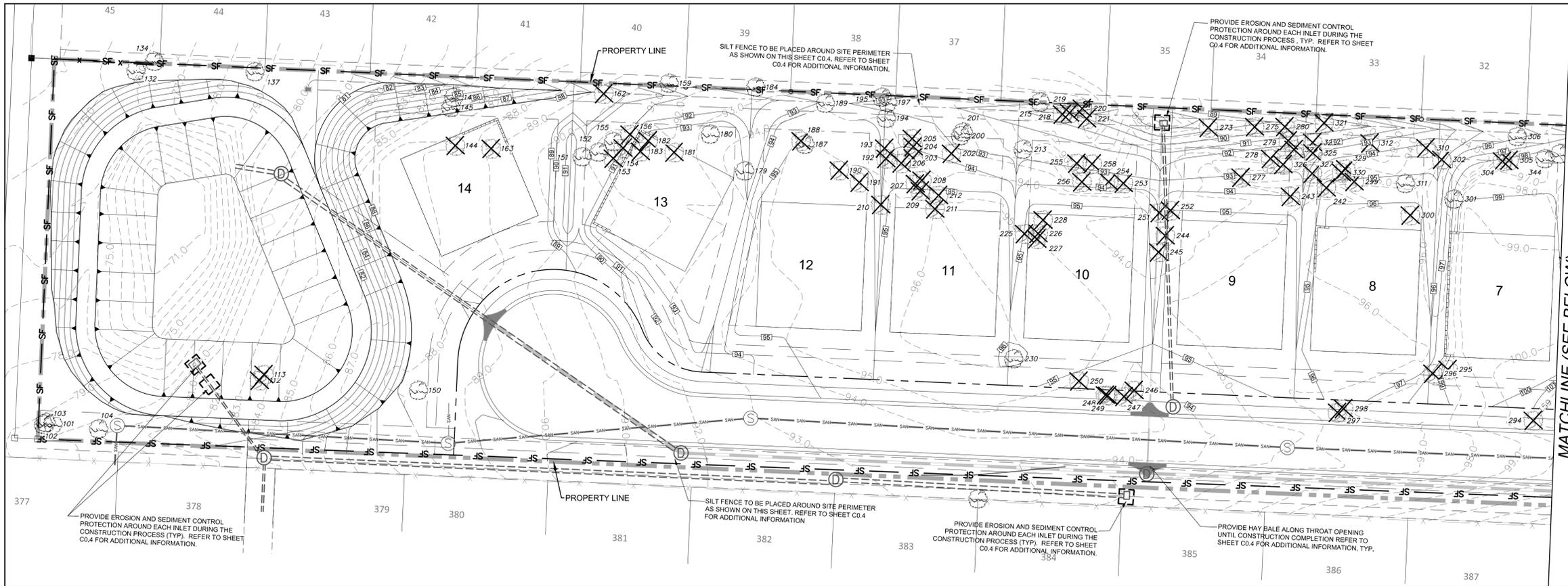
Consulting Engineers • Surveyors

An NVIS Company

DRAWING NO. C0.2

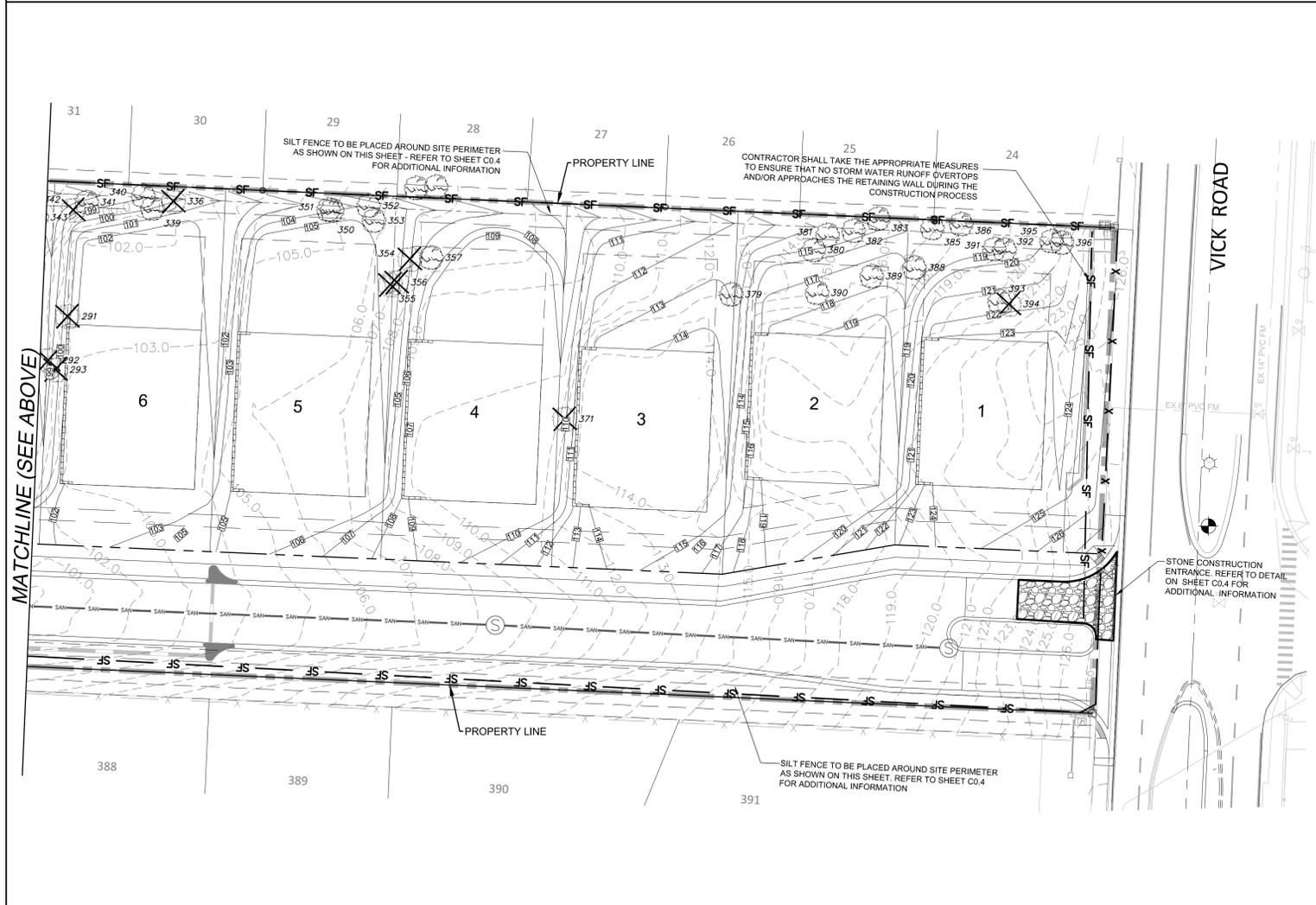
SHEET 3 OF 22





- LEGEND:**
- TEMPORARY STORM INLET PROTECTION
  - STAKED SILT FENCE
  - STONE CONSTRUCTION ENTRANCE (TEMPORARY)
  - EXISTING TREE TO BE SAVED
  - EXISTING TREE TO BE REMOVED
- EROSION/SEDIMENTATION CONTROL NOTES:**
- CONTRACTOR SHALL COMPLY WITH NPDES PHASE II REGULATIONS AND PROVIDE EROSION CONTROL MEASURES IN ACCORDANCE WITH CONSTRUCTION DOCUMENTS AND THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
  - CONTRACTOR IS TO PROVIDE EROSION CONTROL & SEDIMENTATION BARRIER (HAY BALES OR SILTATION CURTAIN) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS AND WATERWAYS.
  - CONTRACTOR SHALL PLACE STRAW, MULCH OR OTHER SUITABLE MATERIAL ON GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT SITE. IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES, EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR BY VEHICULAR TRAFFIC, THE CONTRACTOR IS TO REMOVE AND CLEAN SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES. EROSION CONTROL BARRIER SHALL BE ESTABLISHED AS SITE CLEARING PROCEEDS AND MAINTAINED UNTIL SUCH TIME AS VEGETATION OR OTHER CONTROLS BECOME EFFECTIVE.
  - ALL EROSION CONTROL DEVICES MUST BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE APPROPRIATE EROSION AND SEDIMENTATION CONTROL RULES AND GUIDELINES.
  - ALL EROSION AND SILTATION MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING.
  - ALL STORM AND SANITARY SEWER LINES NOT IN STREETS ARE TO BE MULCHED AND SEEDED WITH SEVEN DAYS AFTER BACKFILL. NO MORE THAN FIVE HUNDRED FEET ARE TO BE OPEN AT ONE TIME.
  - ALL TEMPORARY EARTH BERMS, DIVERSIONS, AND SILT DAMS ARE TO BE MULCHED AND SEEDED FOR VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. THE SAME APPLIES TO STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
  - ELECTRIC POWER, TELEPHONE, CABLE TELEVISION AND GAS SUPPLY TRENCHES ARE TO BE COMPACTED, SEEDED AND MULCHED WITHIN FIFTEEN DAYS AFTER BACKFILL.
  - TEMPORARY SEEDING WILL BE APPLIED WITHIN SEVEN DAYS TO DENuded AREAS WHICH MAY NOT BE AT FINAL GRADE, BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN THIRTY DAYS. FOR TEMPORARY SEEDING USE FIFTY PERCENT OF THE RECOMMENDED RATES OF FERTILIZER AND LIME AMOUNTS OF SEED AND MULCH REQUIRED FOR REGULAR SEEDING.
  - DURING CONSTRUCTION, ALL STORM SEWER INLETS WILL BE PROTECTED BY THE APPROPRIATE DEVICE, MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS.
  - CONSTRUCTION SHALL BE SEQUENCED SO THAT ALL EARTH MOVING AND GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
  - FINAL REMOVAL OF EROSION CONTROL DEVICES SHALL NOT OCCUR UNTIL THE LOCAL EROSION CONTROL INSPECTOR HAS DEEMED THE SITE STABILIZED.
  - AFTER THE COMPLETION OF THE STORM SEWER SYSTEM FOR THE PROJECT SITE, THE CONTRACTOR SHALL TAKE THE APPROPRIATE MEASURES TO ENSURE THAT THE STORMWATER RUNOFF IS TREATED PROPERLY BEFORE DISCHARGING INTO THE OVERALL STORM SEWER SYSTEM BY USING THE APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES.
  - CONTACT THE LOCAL ENVIRONMENTAL INSPECTOR PRIOR TO CONNECTING TO THE OVERALL STORM SEWER SYSTEM TO ENSURE THAT THE PROJECT SITE HAS BEEN STABILIZED PER HIS SATISFACTION.

MATCHLINE (SEE BELOW)



**TREE PROTECTION DATA:**

TREE INCHES ON PROPERTY: SPECIMEN TREE INCHES = 781  
 NON-SPECIMEN EXOTIC = 1,017  
 NON-SPECIMEN NON-EXOTIC = 594  
 TOTAL TREE INCHES ON PROPERTY = 2,392

TREE INCHES TO BE REMOVED: SPECIMEN TREE INCHES = 196  
 NON-SPECIMEN EXOTIC = 1,017  
 NON-SPECIMEN NON-EXOTIC = 125  
 TOTAL TREE INCHES TO BE REMOVED = 1,338

TREE INCHES TO BE SAVED: SPECIMEN TREE INCHES = 585  
 NON-SPECIMEN EXOTIC = 0  
 NON-SPECIMEN NON-EXOTIC = 469  
 TOTAL TREE INCHES TO BE SAVED = 1,054

NUMBER TREE SAVED = 55  
 UNDISTURBED TREE SAVE AREA (20" DIA.) = 314 SF  
 UNDISTURBED AREA = (# TREE SAVED) x 314 SF = 55 x 314 = 17,270 SF  
 SITE CLEARING AREA = 243,343 (TOTAL SITE) - 17,270 SF = 226,073 SF

TREE INCHES TO BE REPLACED: SPECIMEN TREE INCHES = 196  
 NON-SPECIMEN EXOTIC = 0  
 NON-SPECIMEN NON-EXOTIC = 125  
 TOTAL TREE INCHES TO BE REPLACED = 321

TOTAL MAX PER 5.01.07-2C = 21 + (30"/1000 SF)(226,073 - 6,000) = 791

THEREFORE, MAXIMUM TREE STOCK REPLACEMENT BY CITY CODE IS 791 INCHES

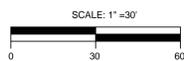
**NOTE:**  
 1. ALL EXISTING TREES TO BE SAVED SHALL BE PROTECTED DURING CONSTRUCTION. REFER TO SHEET C0.4 FOR TREE PROTECTION DETAIL.

**TREE REPLACEMENT PLAN:**

REFER TO LANDSCAPE PLAN, SHEET L-1 FOR TREE REPLACEMENT INFORMATION.

**TREE SCHEDULE**

ID	TYPE SIZE (INCHES)	TO REMAIN (O)	TO BE REMOVED (X)	ID	TYPE SIZE (INCHES)	TO REMAIN (O)	TO BE REMOVED (X)	ID	TYPE SIZE (INCHES)	TO REMAIN (O)	TO BE REMOVED (X)	ID	TYPE SIZE (INCHES)	TO REMAIN (O)	TO BE REMOVED (X)
101	PINE 8"	O		189	OAK 16"	O		228	EAR 13"		X	297	OAK 24"		X
102	PINE 8"	O		190	CHBY 13"		X	230	OAK 33"	O		298	CHBY 10"		X
103	PINE 8"	O		191	CHBY 8"		X	242	CHBY 15"		X	299	CHBY 7"		X
104	PINE 8"	O		192	CHBY 10"		X	243	EAR 12-12-12"		X	300	EAR 7-11"		X
112	OAK 15x2		X	193	CHBY 12"		X	244	EAR 28"		X	301	OAK 18"	O	
113	OAK 10"		X	194	OAK 20"	O		245	EAR 7"		X	302	EAR 12"		X
132	PINE 6"	O		195	OAK 6"	O		246	EAR 19-15"		X	303	EAR 10"		X
134	OAK 15x2	O		197	OAK 6"	O		247	EAR 7-10"		X	304	EAR 15"		X
137	CMPH 18"	O		200	OAK 6"	O		248	EAR 7-12"		X	306	OAK 18"	O	
144	OAK 30"		X	201	OAK 16"	O		249	EAR 7-12"		X	310	EAR 16"		X
145	OAK 30"	O		202	CHBY 9"		X	250	OAK 30" DEAD		X	311	OAK 10-13"	O	
146	OAK 36"	O		203	CHBY 9"		X	251	EAR 7-11"		X	312	EAR 22"		X
150	OAK 24-12-12"	O		204	CHBY 9"		X	252	EAR 13-11"		X	321	CMPH 6"		X
151	OAK 15"	O		205	CHBY 7"		X	253	EAR 15"		X	322	CMPH 8-15"		X
152	OAK 13"	O		206	CHBY 7"		X	254	EAR 18"		X	324	EAR 9"		X
153	OAK 13"		X	207	CHBY 8"		X	255	EAR 8"		X	325	EAR 13"		X
154	OAK 6"		X	208	CHBY 7"		X	256	CHBY 15"		X	326	EAR 15-15"		X
155	OAK 24"	O		209	CHBY 9"		X	258	EAR 10"		X	327	EAR 16"		X
156	CHBY 9"		X	210	EAR 12-12"		X	273	EAR 20"		X	329	CHBY 8"		X
159	OAK 15-10"	O		211	OAK 20-20"		X	275	EAR 16-16-16"		X	330	CHBY 8-8-6"		X
162	CHBY 10"		X	212	OAK 24"		X	277	EAR 18"		X	336	EAR 20"		X
163	CHBY 16"		X	213	OAK 12-18-20"	O		278	CHBY 10-10"		X	339	OAK 15"	O	
179	OAK 30"	O		215	OAK 24"	O		279	EAR 10"		X	340	OAK 17"	O	
180	OAK 24"	O		218	EAR 8"		X	280	CHBY 12"		X	341	OAK 16"	O	
181	CHBY 9"		X	219	EAR 9"		X	291	CHBY 6"		X	342	EAR 16"		X
182	CHBY 7"		X	220	EAR 20"		X	292	EAR 8-8"		X	343	OAK 12-12"	O	
183	CHBY 10"		X	221	CHBY 9"		X	293	EAR 8-8-8-8"		X	344	OAK 20"	O	
184	OAK 60"	O		225	CHBY 10"		X	294	OAK 48"		X	350	PALM 9"	O	
187	OAK 13"	O		226	CHBY 10"		X	295	CMPH 8"		X	351	OAK 27"	O	
188	CHBY 6"		X	227	CHBY 10"		X	296	PALM 15"		X	352	OAK 8"	O	



**ENGINEER:** EDGAR J. ANNA, P.E., F.L.C. 176902  
**PREL. MGR.:** EGL  
**DESIGNER:** EGL  
**CHECKED:** JM  
 DATE: Jan. 04, 2018

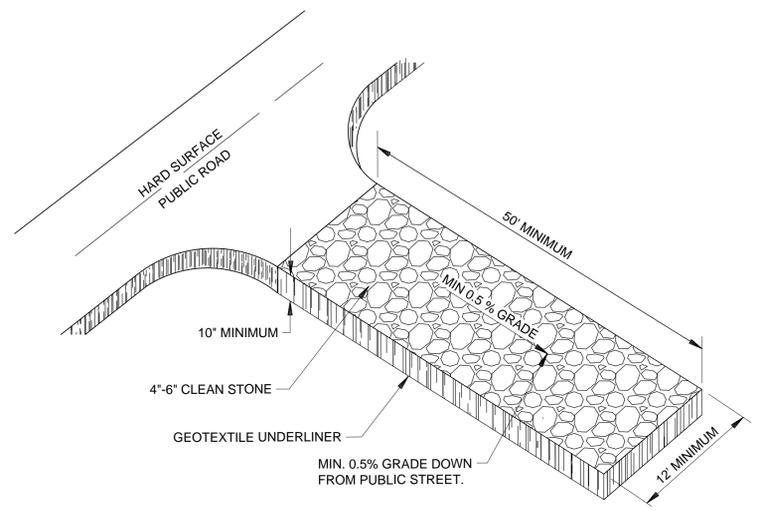
**RECORD DRAWING:** THE CITY OF APOPKA, FLORIDA  
 10/28/17 CITY OF APOPKA REVISIONS  
 10/24/17 SURF REVISIONS  
 NO. DATE

**ZARABROOKE**  
 VICK & W. MARTIN STREET  
 APOPKA, FLORIDA  
 ZARABROOKE, LLC

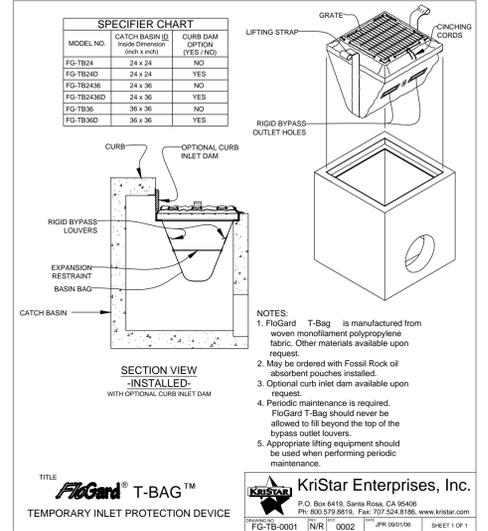
**EROSION CONTROL & TREE PROTECTION PLAN**

**LOCHRANE**  
 Consulting Engineers • Surveyors  
 An **ENVIS** Company  
 201 SOUTH BUNNY AVENUE | ORLANDO, FL 32803  
 PH: (407) 988-3317 | FAX: (407) 988-9187  
 WWW.LOCHRANE.COM  
 CERTIFICATE OF AUTHORIZATION # 0002855

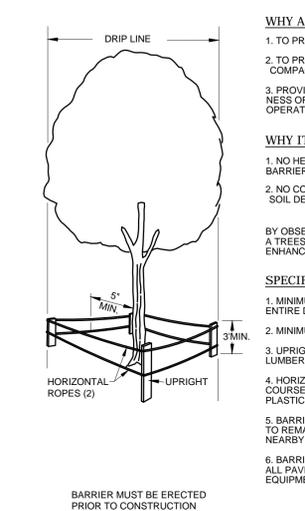
DRAWING NO. **C0.3** SHEET 4 OF 22



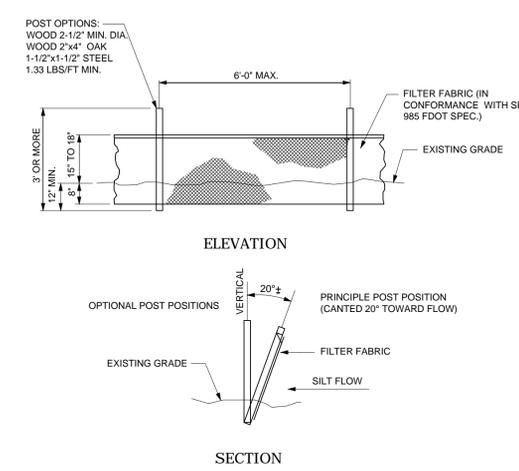
1 CONSTRUCTION ENTRANCE NTS



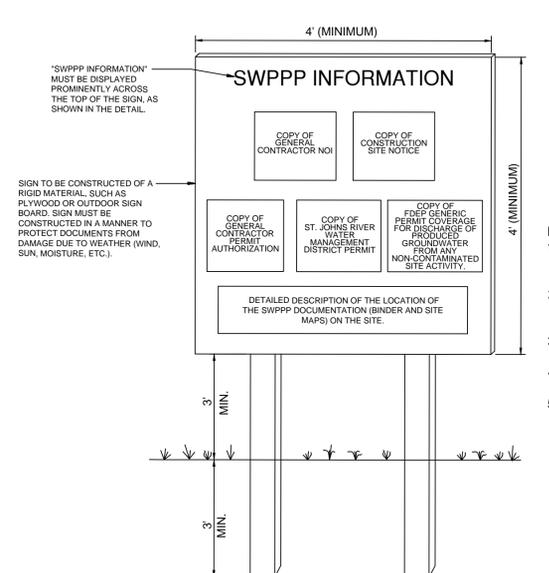
2 INLET SEDIMENT FILTER NTS



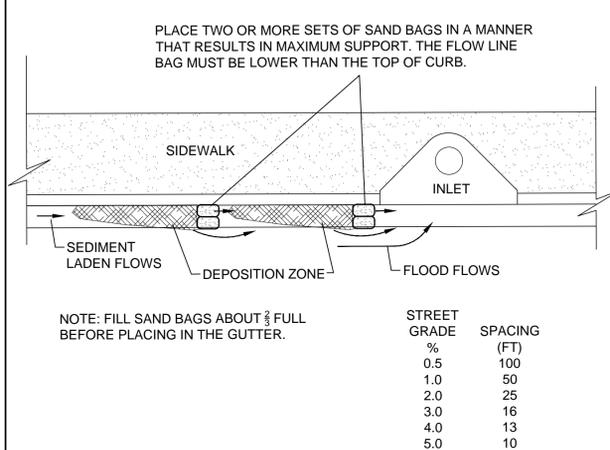
3 TREE PROTECTION DETAIL NTS



4 SILT FENCE NTS



5 SWPPP INFORMATION SIGN NTS



6 CURB & GUTTER SEDIMENT CONTAINMENT SYSTEM NTS

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Consulting Engineers • Surveyors  
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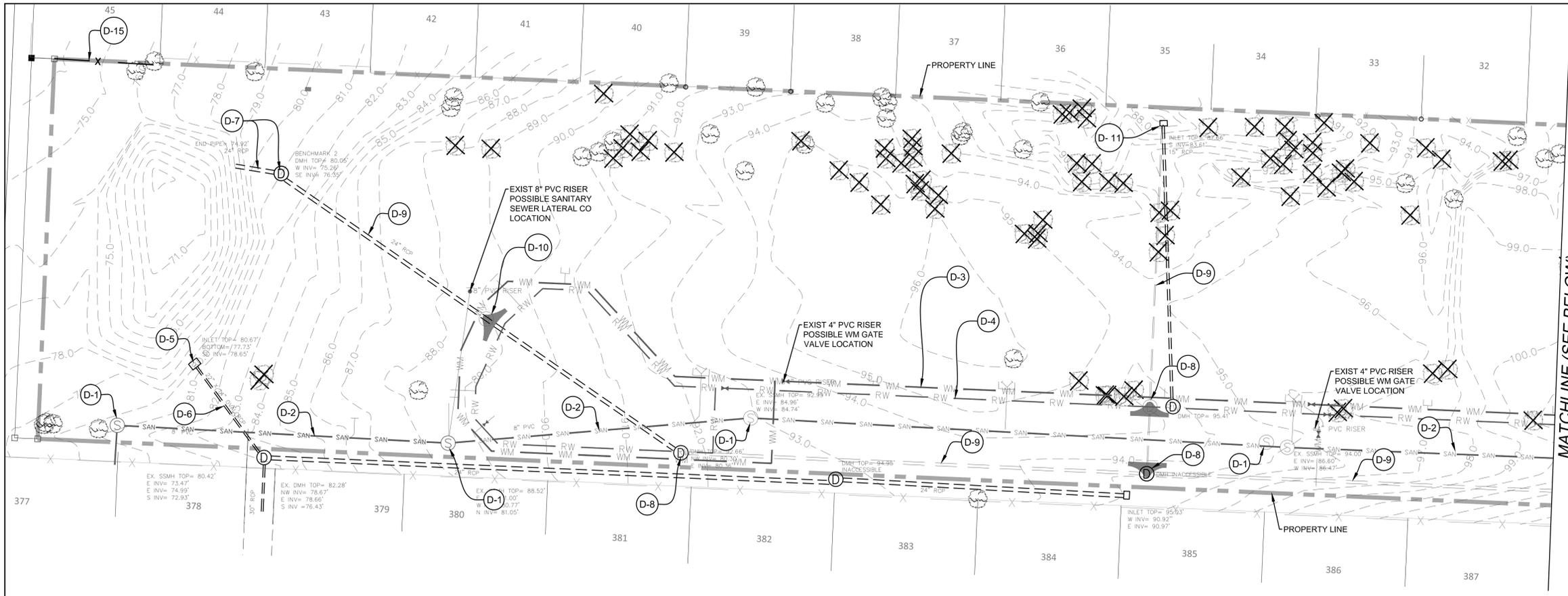
201 SOUTH BUNBY AVENUE | ORLANDO, FL 32803  
PH: (407) 886.3317 | FAX: (407) 886.9197  
WWW.LOCHRANE.COM  
CERTIFICATE OF AUTHORIZATION # 0002858

**ZARABROOKE**  
at  
VICK & W. MARTIN STREET  
APOPKA, FLORIDA  
for  
ZARABROOKE, LLC

**EROSION CONTROL & TREE PROTECTION DETAILS**

ENGINEER: EDGAR GARCIA, P.E., FL LIC. 17692  
DATE: Jan. 04, 2018  
JOB #: 1701220  
PRL MGR: EGL  
DESIGNER: EGL  
CHECKED: JM

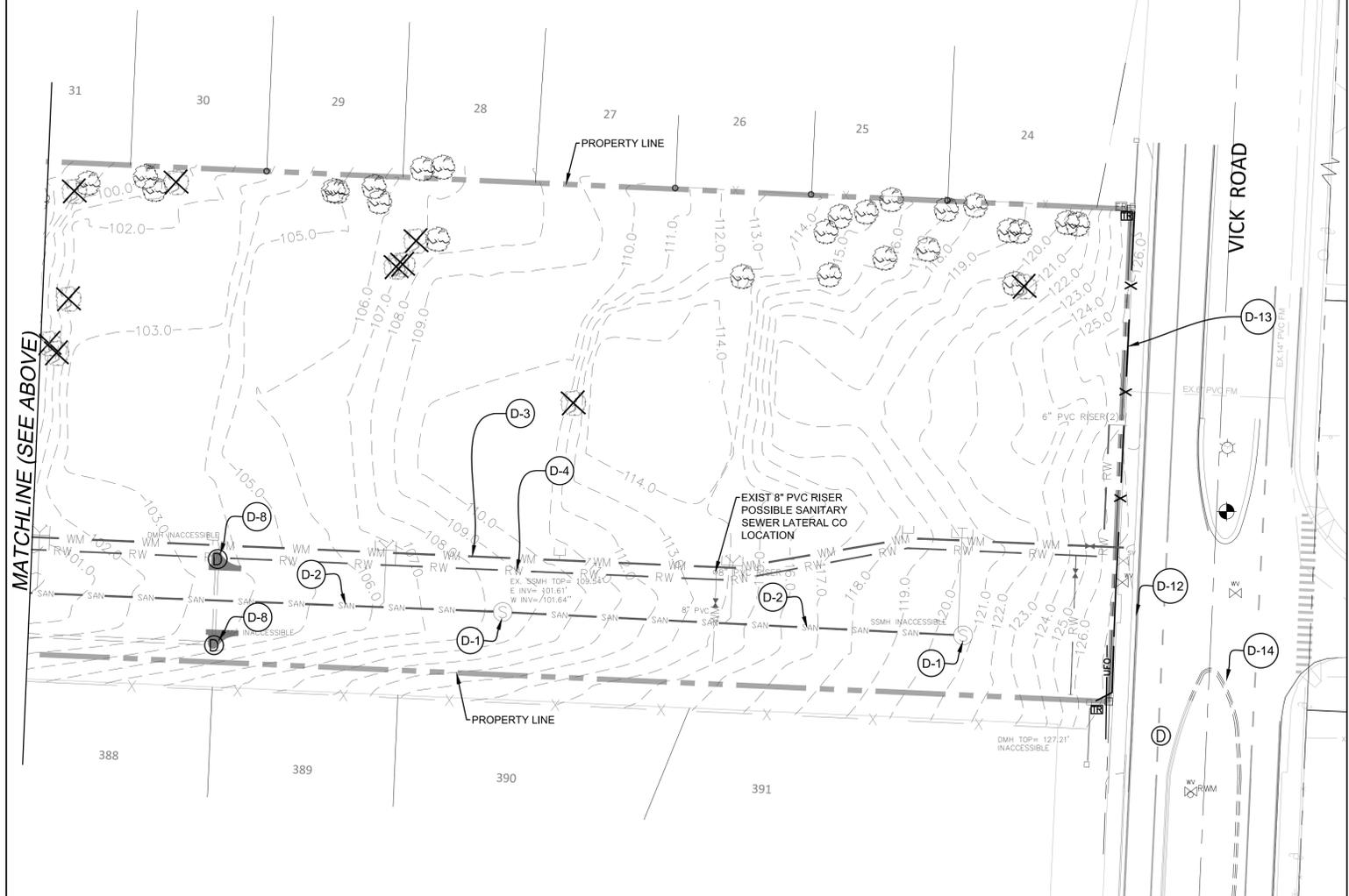
DRAWING NO. C0.4  
SHEET 5 OF 22



- LEGEND:**
- (D-#) DEMOLITION ITEM NO.
  - (Tree symbol) EXISTING TREE TO BE SAVED (REFER TO SHEET C0.3 FOR TREE SCHEDULE)
  - (X symbol) EXISTING TREE TO BE REMOVED (REFER TO SHEET C0.3 FOR TREE SCHEDULE)

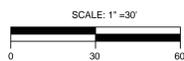
**DEMOLITION SCHEDULE**

ITEM NO.	DESCRIPTION/ACTION
D-1	EXISTING SANITARY MANHOLE (6 MANHOLES TOTAL). SEE DEMOLITION NOTE 17.
D-2	EXISTING 8" PVC SANITARY SEWER (APPROX 1,135 LF). SEE DEMOLITION NOTE 17.
D-3	EXISTING 8" PVC WATER MAIN (APPROX 1,300 LF). SEE DEMOLITION NOTE 19.
D-4	EXISTING 6" PVC RECLAIM WATER MAIN (APPROX 1,300 LF). SEE DEMOLITION NOTE 19.
D-5	EXISTING TYPE "E" INLET TO BE REMOVED.
D-6	EXISTING 14"x22" ERCP TO BE REMOVED AND REPLACED.
D-7	EXISTING 24" RCP & MANHOLE TO BE REMOVED.
D-8	EXISTING STORM SEWER STRUCTURE. SEE DEMOLITION NOTE 18.
D-9	EXISTING STORM SEWER RCP. SEE DEMOLITION NOTE 18.
D-10	EXISTING STORM SEWER STRUCTURE (NOT FOUND). SEE DEMOLITION NOTE 18.
D-11	EXISTING TYPE "C" INLET TO REMAIN.
D-12	EXISTING CONC CURB & GUTTER TO BE REMOVED (APPROX 55 LF).
D-13	EXISTING CHAIN LINKED FENCE TO BE REMOVED (APPROX 190 LF).
D-14	EXISTING CONC CURB & GUTTER TO BE REMOVED (APPROX 220 LF).
D-15	EXISTING FENCE TO BE REMOVED (APPROX 55 LF).



**DEMOLITION NOTES:**

1. CHAPTER 553.851 OF THE FLORIDA STATUTES REQUIRES THAT AN EXCAVATOR NOTIFY ALL GAS UTILITIES A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO EXCAVATING.
2. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, SUPERVISION AND EQUIPMENT REQUIRED FOR THE ORDERLY DEMOLITION AND REMOVAL OF EXISTING STRUCTURES, PAVEMENT AND UTILITIES AS SHOWN ON THE DRAWINGS AND DESCRIBED HEREIN.
3. THE CONTRACTOR IS REQUIRED TO FAMILIARIZE HIMSELF WITH THE STRUCTURES TO BE DEMOLISHED. A BRIEF DESCRIPTION OF THE STRUCTURES IS INCLUDED FOR THE CONTRACTOR'S CONVENIENCE ONLY.
4. ALL EXISTING STRUCTURES, PAVEMENTS, SLABS, FOUNDATIONS, STEPS, AND OTHER EXISTING FEATURES INDICATED ON THE DRAWINGS TO BE REMOVED SHALL BE DEMOLISHED AND REMOVED BY THE CONTRACTOR. REMOVE NO STRUCTURE SUBSTANTIALLY AS A WHOLE. DEMOLISH COMPLETELY ON THE PREMISES.
5. ELECTRICAL, TELEPHONE, CABLE, AND/OR GAS LINES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS A NECESSITY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE.
6. PROVIDE ADEQUATE PROTECTION FOR PERSONS AND PROPERTY AT ALL TIMES. EXECUTE THE WORK IN A MANNER TO AVOID HAZARDS TO PERSONS AND PROPERTY AND PREVENT INTERFERENCE WITH THE USE OF AND ACCESS TO ADJACENT BUILDINGS, STREETS AND SIDEWALKS SHALL NOT BE UNNECESSARILY BLOCKED BY DEBRIS AND EQUIPMENT.
7. CONTRACTOR MUST STOP OPERATION AND NOTIFY THE OWNER FOR PROPER DIRECTION IF ANY ENVIRONMENTAL OR HEALTH RELATED CONTAMINATE IS ENCOUNTERED DURING DEMOLITION/EXCAVATION PROCESS.
8. DISPOSAL
  - A. REMOVE AND LEGALLY DISPOSE OF ALL OTHER RUBBISH, RUBBLE, AND DEBRIS. COMPLY WITH ALL APPLICABLE LAWS AND REGULATIONS GOVERNING DISPOSAL OF WASTES AND DEBRIS.
9. PAVEMENT REMOVAL
  - A. WHERE EXISTING PAVEMENT IS TO BE REMOVED, SAW-CUT THE SURFACE LEAVING A UNIFORM AND STRAIGHT EDGE WITH MINIMUM DISTURBANCE TO THE REMAINING ADJACENT SURFACING. IF CONSTRUCTION RESULTS IN RAVELING OF THE SAW-CUT SURFACE, RE-CUT BACK FROM THE RAVELED EDGE PRIOR TO RESTORATION.
  - B. WHERE EXISTING PAVEMENT, CURB, GUTTER AND GUTTER, SIDEWALK, DRIVEWAY OR VALLEY GUTTER IS REMOVED FOR THE PURPOSE OF CONSTRUCTING OR REMOVING BOX CULVERTS, PIPES, INLETS, MANHOLES, APPURTENANCES, FACILITIES OR STRUCTURES SAID PAVEMENT, ETC. SHALL BE REPLACED AND RESTORED IN EQUAL OR BETTER CONDITION THAN THE ORIGINAL.
10. PERMITTING: IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY REQUIRED PERMITTING FOR DEMOLITION FROM RESPONSIBLE AGENCIES AND FULLY ACKNOWLEDGE AND COMPLY WITH ALL REQUIREMENTS PRIOR TO COMMENCING DEMOLITION WORK.
11. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE EXTENT OF DEMOLITION REQUIRED IN ORDER TO PERFORM THE CONTRACT WORK FOR THIS PROJECT. THE CONTRACTOR SHALL CONDUCT SITE VISITS AND SHALL EXAMINE ALL OF THE INFORMATION WITHIN THESE DOCUMENTS. ALL DISCREPANCIES AND/OR OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID SUBMITTAL.
12. PRIOR TO DEMOLITION WORK OCCURRING, ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.
13. CONTRACTOR SHALL LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AND SHOWN ON THIS SHEET. IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, SIDEWALK, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR.
14. IF THE EXISTING STORM AND SANITARY SEWER MANHOLES HAVE EXISTING PIPES REMOVED THE HOLE WILL BE PLUGGED WITH BRICK, MORTAR AND CONCRETE UNLESS THE EXISTING PIPE IS REPLACED WITH A PROPOSED PIPE. ALL EXISTING MANHOLES SHALL BE CORE DRILLED TO RECEIVE PROPOSED PIPES.
15. ANY BURIED UTILITIES/CONDUITS THAT ARE TO BE ABANDONED IN PLACE SHOULD BE GROUT FILLED.
16. EXCAVATIONS RESULTING FROM THE REMOVAL OF BURIED ELEMENTS SHOULD BE BACKFILLED WITH CLEAN, COMPACTED, ENGINEERED FILL.
17. SANITARY SEWER SYSTEM REMOVAL
  - A. OPTION "A" - CONTRACTOR SHALL REMOVE ALL SANITARY MANHOLES AND PIPES WITHIN THE PROJECT LIMITS.
  - B. OPTION "B" - EXISTING GRAVITY SEWER SYSTEMS SHALL BE CLEARED AND FLUSHED, AND SHALL BE TESTED FOR ALIGNMENT, DEFLECTION, AND INTEGRITY, IN ACCORDANCE TO SECTION 44 OF THE CITY OF APOPKA UTILITIES DESIGN AND CONSTRUCTION MANUAL. EXISTING CONDITION SURVEY SHALL BE PROVIDED TO THE ENGINEER OF RECORD, AND THE CITY OF APOPKA FOR REVIEW AND APPROVAL. ALL TESTING, PROCEDURES, AND VIDEO INSPECTIONS SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE OF CITY INSPECTION PERSONNEL AND CERTIFIED BY THE DEVELOPER'S ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL NECESSARY LABOR AND EQUIPMENT FOR ALL SUCH TESTING AND INSPECTIONS. SANITARY MANHOLES SHALL BE LINED PER CITY OF APOPKA REQUIREMENTS.
18. STORM SEWER SYSTEM REMOVAL
  - A. OPTION "A" - CONTRACTOR SHALL REMOVE AND REPLACE ALL EXISTING STORM SEWER STRUCTURES AND PIPES WITHIN THE PROJECT LIMITS.
  - B. OPTION "B" - EXISTING STORM SEWER SYSTEMS SHALL BE CLEARED AND FLUSHED, AND SHALL BE TESTED FOR ALIGNMENT, DEFLECTION, AND INTEGRITY.
19. WATER, AND RECLAIM WATER MAIN REMOVAL
  - A. ALL EXISTING WATER, AND RECLAIM WATER MAIN PIPES, FITTING AND APPURTENANCES LOCATED WITHIN THE PROPERTY LIMITS SHALL BE REMOVED AND REPLACED.
  - B. EXISTING PIPES, FITTINGS AND APPURTENANCES ARE SHOWN IN THEIR APPROXIMATE LOCATION. CONTRACTOR SHALL FIELD VERIFY AND CONFIRM QUANTITY AND LOCATION.



**ENGINEER:** EDGAR M. ANNA, P.E. FL. LIC. #76802

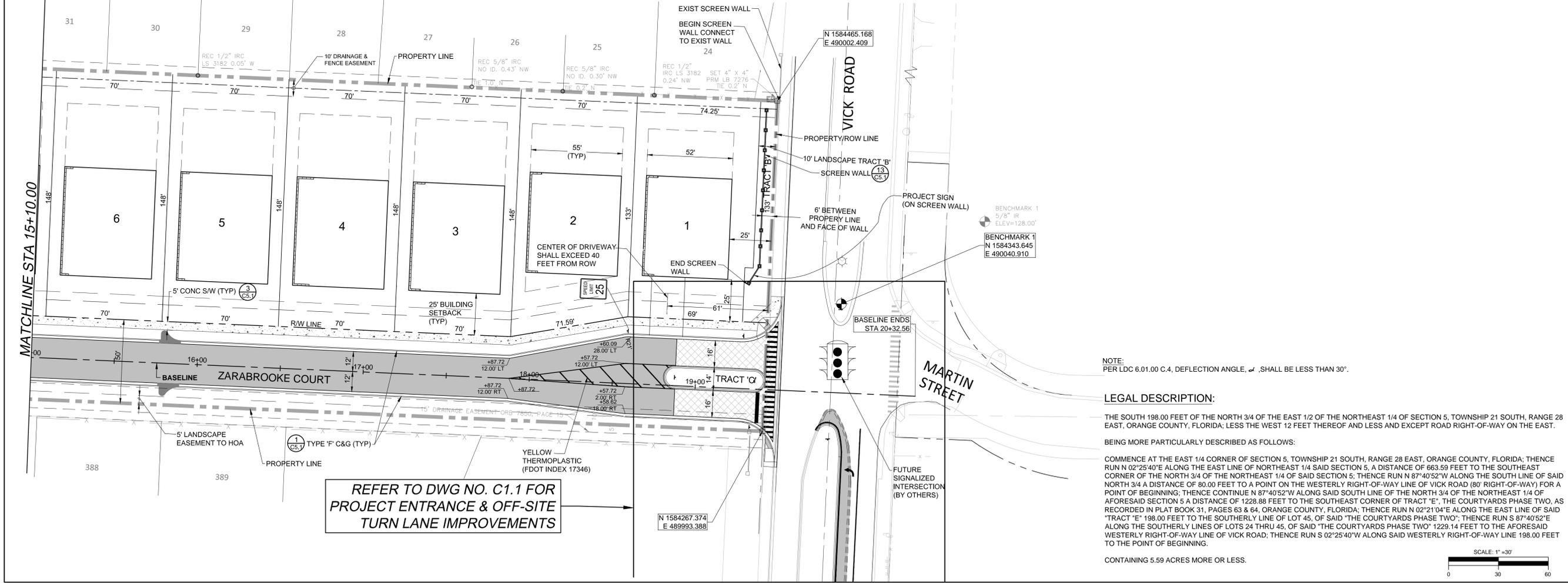
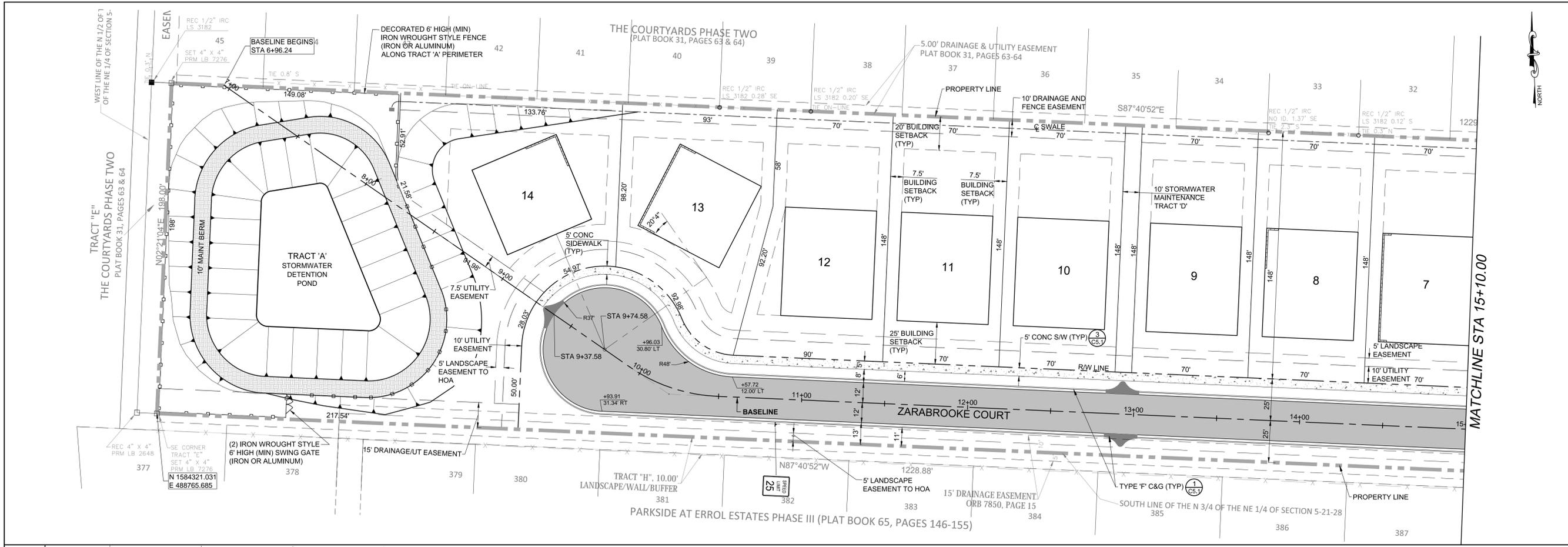
**RECORD DRAWING:** THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES AND AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES AND AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES AND AUTHORITIES.

DATE: Jan. 04, 2018	DESIGNER: ECL	PRJ. MGR.: ECL	JOB #: 1701220
REVISIONS	10/28/17 CITY OF APOPKA REVISIONS	10/28/17 CITY OF APOPKA REVISIONS	10/24/17 SURVIVOR REVISIONS
NO.	DATE	DESCRIPTION	BY
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**ZARABROOKE**  
VICK & W. MARTIN STREET  
APOPKA, FLORIDA  
FOR  
ZARABROOKE, LLC

**LOCHRANE**  
Consulting Engineers • Surveyors  
An NVIS Company  
251 SOUTH BUNNY AVENUE | ORLANDO, FL 32803  
PH: (407) 888.3317 | FAX: (407) 888.8187  
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CERTIFICATE OF AUTHORIZATION # 00058595

DRAWING NO. **C0.5** SHEET **6** OF **22**

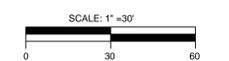


REFER TO DWG NO. C1.1 FOR PROJECT ENTRANCE & OFF-SITE TURN LANE IMPROVEMENTS

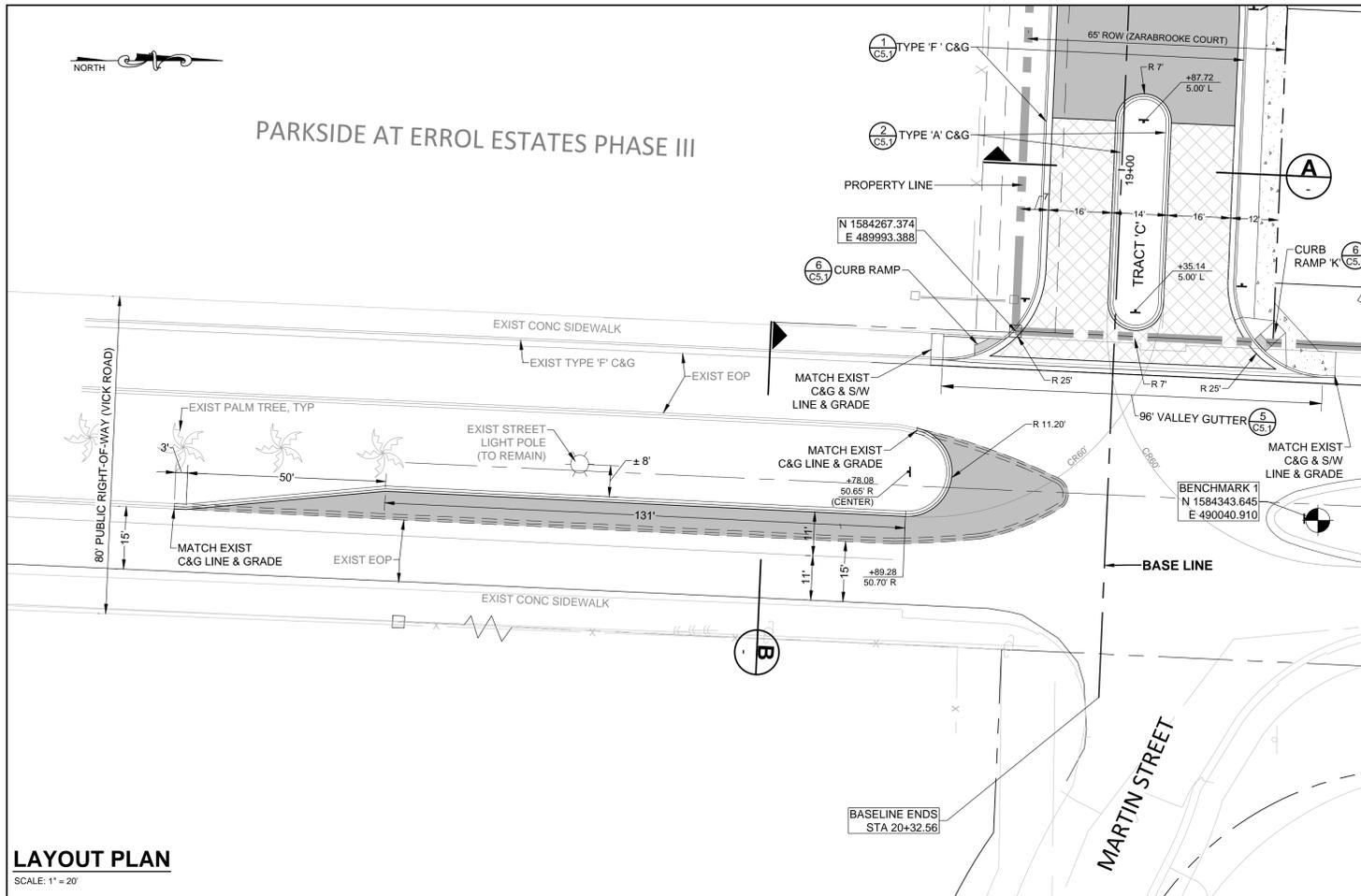
**NOTE:**  
PER LDC 6.01.00 C.4, DEFLECTION ANGLE,  $\alpha$ , SHALL BE LESS THAN 30°.

**LEGAL DESCRIPTION:**  
THE SOUTH 198.00 FEET OF THE NORTH 3/4 OF THE EAST 1/2 OF THE NORTHEAST 1/4 OF SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; LESS THE WEST 12 FEET THEREOF AND LESS AND EXCEPT ROAD RIGHT-OF-WAY ON THE EAST.  
BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
COMMENCE AT THE EAST 1/4 CORNER OF SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; THENCE RUN N 02°25'40"E ALONG THE EAST LINE OF NORTHEAST 1/4 SAID SECTION 5, A DISTANCE OF 663.59 FEET TO THE SOUTHEAST CORNER OF THE NORTH 3/4 OF THE NORTHEAST 1/4 OF SAID SECTION 5; THENCE RUN N 87°40'52"W ALONG THE SOUTH LINE OF SAID NORTH 3/4 A DISTANCE OF 80.00 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF VICK ROAD (80' RIGHT-OF-WAY) FOR A POINT OF BEGINNING; THENCE CONTINUE N 87°40'52"W ALONG SAID SOUTH LINE OF THE NORTH 3/4 OF THE NORTHEAST 1/4 OF AFORESAID SECTION 5 A DISTANCE OF 1228.88 FEET TO THE SOUTHEAST CORNER OF TRACT 'E', THE COURTYARDS PHASE TWO, AS RECORDED IN PLAT BOOK 31, PAGES 63 & 64, ORANGE COUNTY, FLORIDA; THENCE RUN N 02°21'04"E ALONG THE EAST LINE OF SAID "TRACT 'E'" 198.00 FEET TO THE SOUTHERLY LINE OF LOT 45, OF SAID "THE COURTYARDS PHASE TWO"; THENCE RUN S 87°40'52"E ALONG THE SOUTHERLY LINES OF LOTS 24 THRU 45, OF SAID "THE COURTYARDS PHASE TWO" 1229.14 FEET TO THE AFORESAID WESTERLY RIGHT-OF-WAY LINE OF VICK ROAD; THENCE RUN S 02°25'40"W ALONG SAID WESTERLY RIGHT-OF-WAY LINE 198.00 FEET TO THE POINT OF BEGINNING.

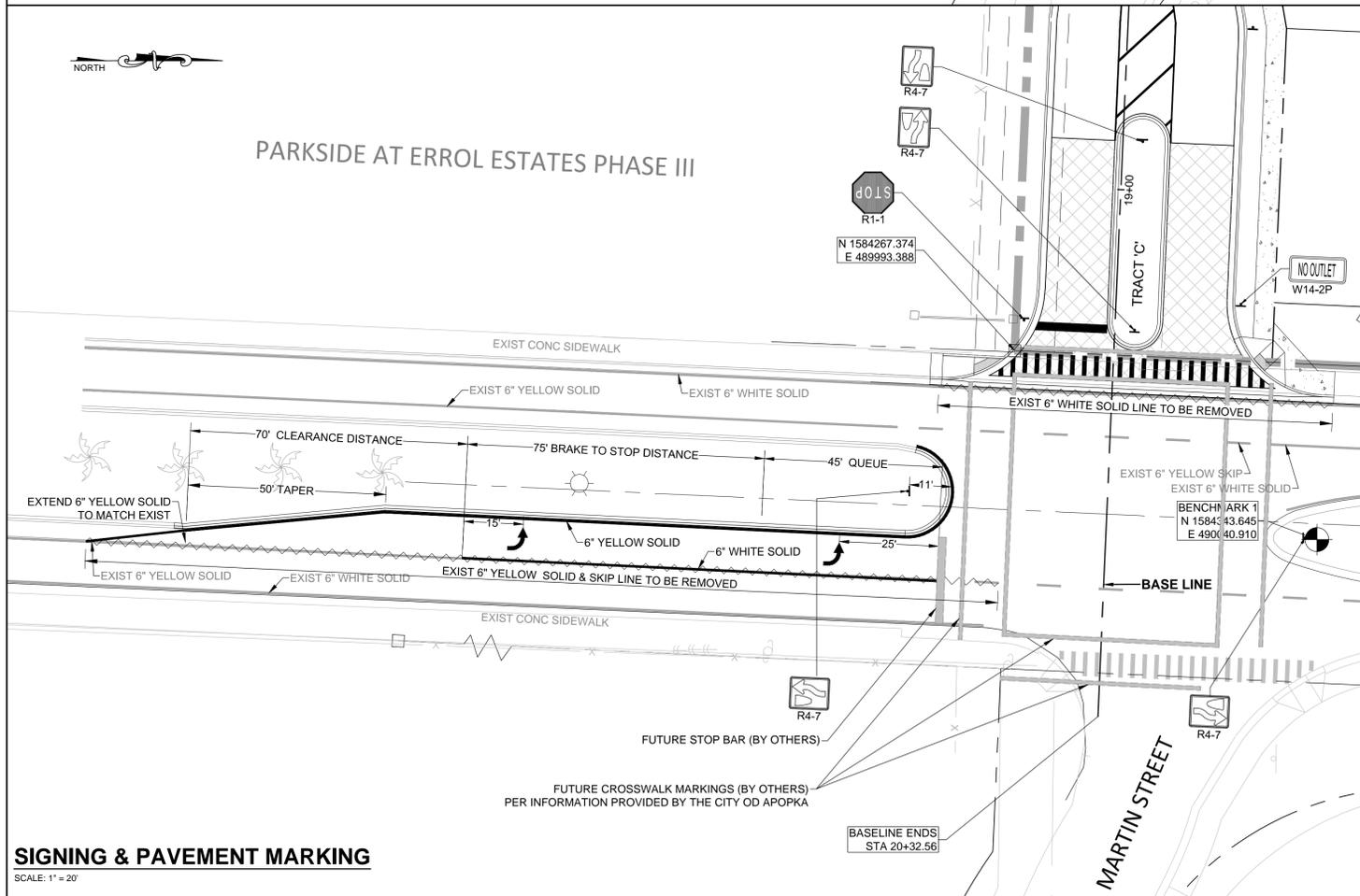
CONTAINING 5.59 ACRES MORE OR LESS.



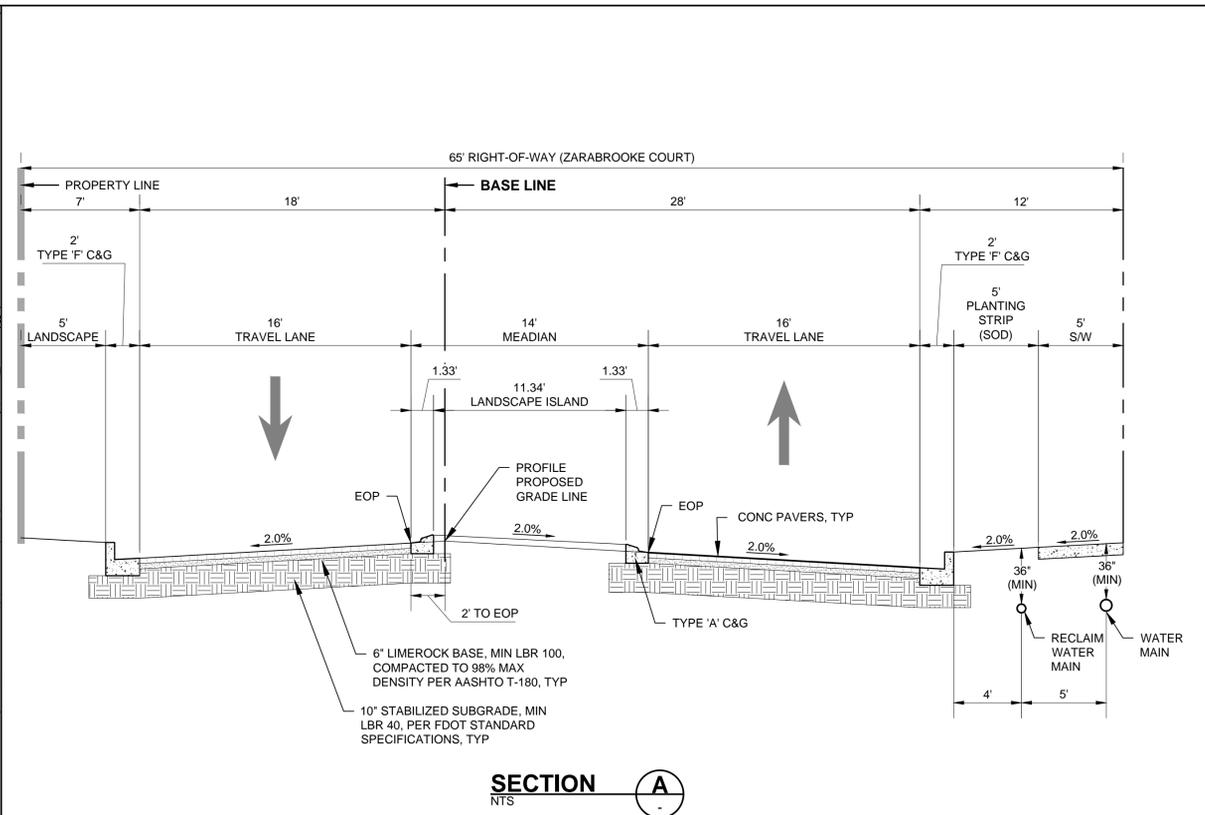
<b>ENGINEER</b> EDGAR ANNA, P.E. FL. LIC. #78902		JOB #: 1701220 PRL MGR: EGL DESIGNER: EGL CHECKED: JM DATE: JUN. 29, 2018
<b>RECORD DRAWING</b> <small>THIS DRAWING IS THE PROPERTY OF LOCHRANE CONSULTING ENGINEERS &amp; SURVEYORS. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. ANY REUSE, REPRODUCTION, OR MODIFICATION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF LOCHRANE CONSULTING ENGINEERS &amp; SURVEYORS IS STRICTLY PROHIBITED. THE USER OF THIS DRAWING SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE ENGINEER'S LIABILITY IS LIMITED TO THE PROFESSIONAL SERVICES PROVIDED BY THE ENGINEER AND DOES NOT EXTEND TO ANY OTHER MATTER.</small>		NO. DATE REVISIONS 10/28/17 CITY OF APOPKA REVISIONS 10/24/17 SURVIMD REVISIONS
<b>ZARABROOKE</b> VICK & W. MARTIN STREET APOPKA, FLORIDA FOR ZARABROOKE, LLC		ENGINEER: FL. LIC. #
<b>LAYOUT GEOMETRY PLAN</b>		DRAWING NO. C1.0 SHEET 7 OF 22
<b>LOCHRANE</b> Consulting Engineers & Surveyors An NVS Company <small>201 SOUTH BUNBY AVENUE   ORLANDO, FL 32803          PH: (407) 886.3317   FAX: (407) 886.5167          WWW.LOCHRANE.COM          CERTIFICATE OF AUTHORIZATION # 0605855</small>		DATE: JUN. 29, 2018



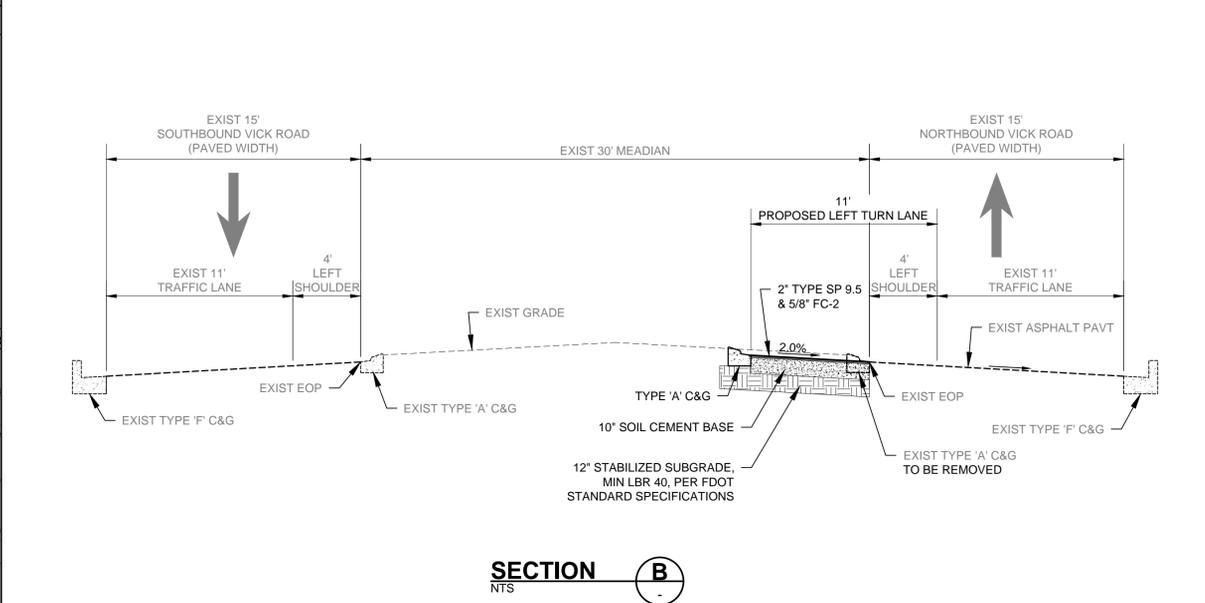
**LAYOUT PLAN**  
SCALE: 1" = 20'



**SIGNING & PAVEMENT MARKING**  
SCALE: 1" = 20'



**SECTION A**  
NTS



**SECTION B**  
NTS

**NOTES:**

1. THE LEFT TURN LANE IMPROVEMENTS ON VICK ROAD HAVE BEEN DESIGNED PER FDOT 2017 DESIGN STANDARDS:
  - a. INDEX NO. 300 FOR CURB AND GUTTER
  - b. INDEX NO. 301 FOR TURN LANE
  - c. INDEX NO. 17346 FOR PAVEMENT MARKINGS
2. CONTRACTOR SHALL PROVIDE MAINTENANCE OF TRAFFIC (MOT) PER FDOT INDEX NO. 602.
3. CONTRACTOR SHALL REPLACE ALL DISTURBED LANDSCAPING AND SOD WITHIN THE EXISTING MEDIAN.
4. CONTRACTOR SHALL PRACTICE CAUTION, AND SHALL PROTECT EXISTING INFRASTRUCTURE.

SCALE: 1" = 20'

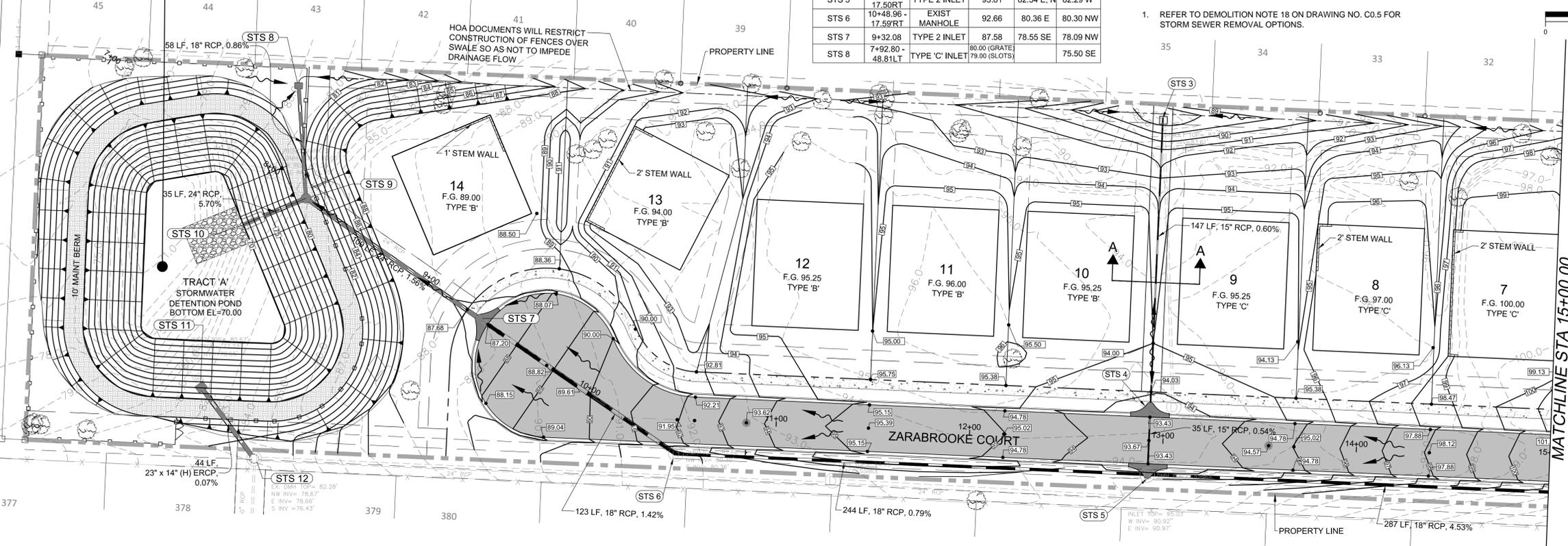
ENGINEER EDGAR A. VIANA, P.E. FL LIC. #78932	PROJECT MGR: EGL DESIGNER: EGL CHECKED: JM	DATE: APR. 12, 2018	REVISIONS NO. DATE DESCRIPTION 01/08/17 CITY OF APOPKA REVISIONS 04/12/18 CITY OF APOPKA REVISIONS 10/28/17 CITY OF APOPKA REVISIONS 10/24/17 SURVIVOR REVISIONS	RECORD DRAWING THIS DRAWING IS THE PROPERTY OF LOCHRANE CONSULTING ENGINEERS AND SURVEYORS, LLC. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. ANY REUSE OR MODIFICATION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF LOCHRANE CONSULTING ENGINEERS AND SURVEYORS, LLC IS STRICTLY PROHIBITED. THE USER OF THIS DRAWING SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE ENGINEER ASSUMES NO LIABILITY FOR THE ACCURACY OF THE INFORMATION PROVIDED BY OTHERS. THE ENGINEER'S RESPONSIBILITY IS LIMITED TO THE DESIGN AND CONSTRUCTION OF THE PROJECT DESCRIBED HEREIN.	ZARABROOKE at VICK & W. MARTIN STREET APOPKA, FLORIDA FOR ZARABROOKE, LLC	PROJECT ENTRANCE & OFF-SITE TURN LANE IMPROVEMENTS	201 SOUTH BUNNY AVENUE   ORLANDO, FL 32803 PH: (407) 886-3317   FAX: (407) 886-5167 WWW.LOCHRANE.COM CERTIFICATE OF AUTHORIZATION # 0005855 An <b>ENVIS</b> Company <b>LOCHRANE</b> Consulting Engineers • Surveyors	DRAWING NO. <b>C1.1</b>	SHEET 8 OF 22
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REFER TO DWG NO. C2.1  
FOR DETENTION POND  
PLAN, SECTIONS & DETAILS

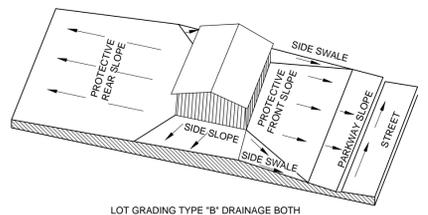
STORM SEWER SCHEDULE					
STRUCTURE NUMBER	STA/OFF	STRUCTURE TYPE	RIM/GRATE	INVERT ELEVATIONS	
STS 1	15+79.54 - 17.50LT	TYPE 1 INLET	104.75	-	95.67 S
STS 2	15+79.54 - 17.50RT	TYPE 1 INLET	104.75	94.59N	95.59 W
STS 3	12+93.68 - 164.78LT	EXIST TYPE 'C' INLET	87.66	-	83.61 S
STS 4	12+92.72 - 17.50LT	TYPE 2 INLET	93.81	82.73N	82.73 S
STS 5	12+92.72 - 17.50RT	TYPE 2 INLET	93.81	82.54 E, N	82.29 W
STS 6	10+48.96 - 17.59RT	EXIST MANHOLE	92.66	80.36 E	80.30 NW
STS 7	9+32.08	TYPE 2 INLET	87.58	78.55 SE	78.09 NW
STS 8	7+92.80 - 48.81LT	TYPE 'C' INLET	80.00 (GRATE) 79.00 (SLOTS)	-	75.50 SE

STORM SEWER SCHEDULE					
STRUCTURE NUMBER	STA/OFF	STRUCTURE TYPE	RIM/GRATE	INVERT ELEVATIONS	
STS 9	8+23.47	TYPE 'P' MH	80.50	75.00 NE 76.39 SE	72.00 NW
STS 10	8+06.14 - 29.82RT	HEADWALL	-	-	70.00 SE
STS 11	8+34.33 - 111.01RT	TYPE 'D' INLET	81.00 (GRATE) 78.65 (SLOT)	-	78.75 SE
STS 12	-	EXIST MANHOLE	82.28	78.67 NW 78.66 E	76.43 S

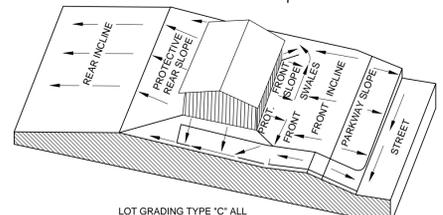
NOTE:  
1. REFER TO DEMOLITION NOTE 18 ON DRAWING NO. C0.5 FOR STORM SEWER REMOVAL OPTIONS.



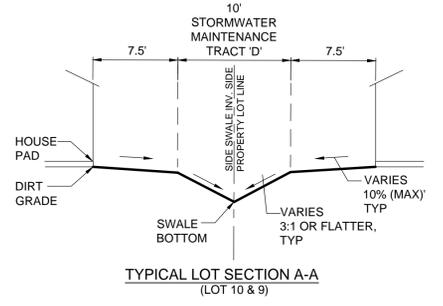
STEM WALLS SHOWN FOR LOTS 1-8 INDICATE ONE POSSIBLE GRADING SOLUTION FOR MAXIMUM BUILDING ENVELOPE. OTHER SOLUTIONS MAY BE UTILIZED BASED ON FINAL BUILDING FOOTPRINT. IN ALL CASES, SLOPES INDICATED BY SECTION C-C SHOULD NOT BE EXCEEDED.



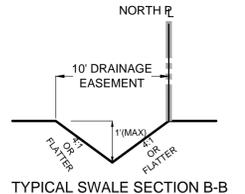
LOT GRADING PLAN - MODIFIED TYPE "B"  
NTS



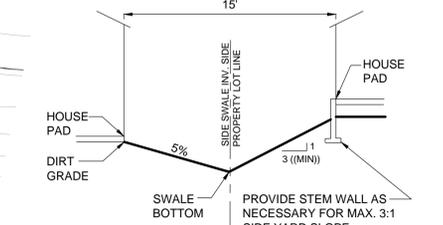
LOT GRADING PLAN - TYPE "C"  
NTS



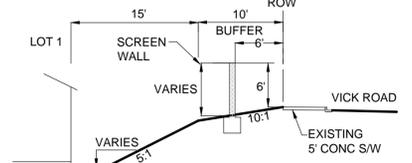
TYPICAL LOT SECTION A-A  
(LOT 10 & 9)



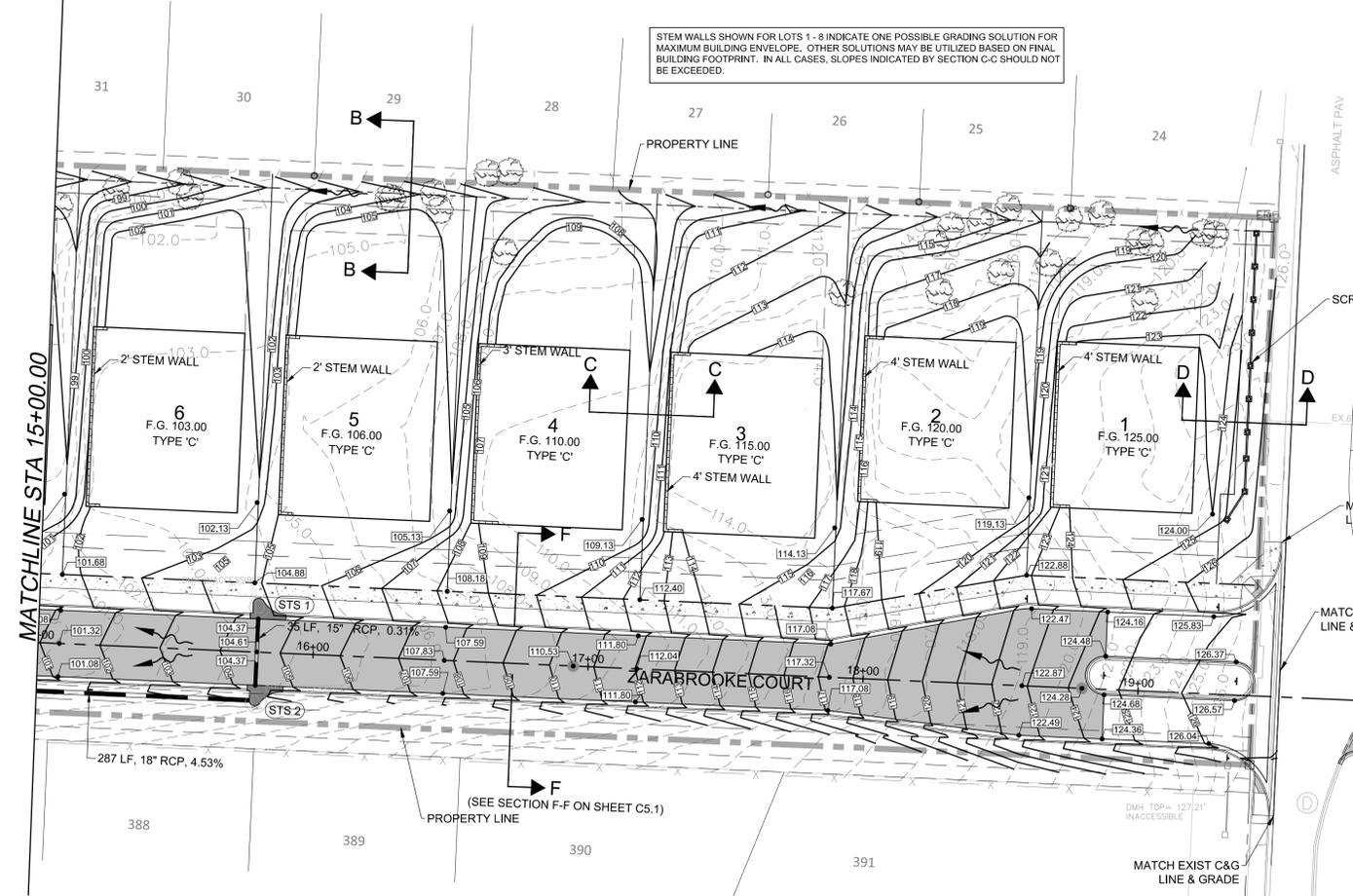
TYPICAL SWALE SECTION B-B



TYPICAL LOT SECTION C-C  
(LOT 1-8)



TYPICAL BUFFER SECTION D-D



ENGINEER: EDGAR G. VIANA, P.E. (FL LIC. 17692)

RECORD DRAWING

ZARABROOKE

VICK & W. MARTIN STREET  
APOPKA, FLORIDA

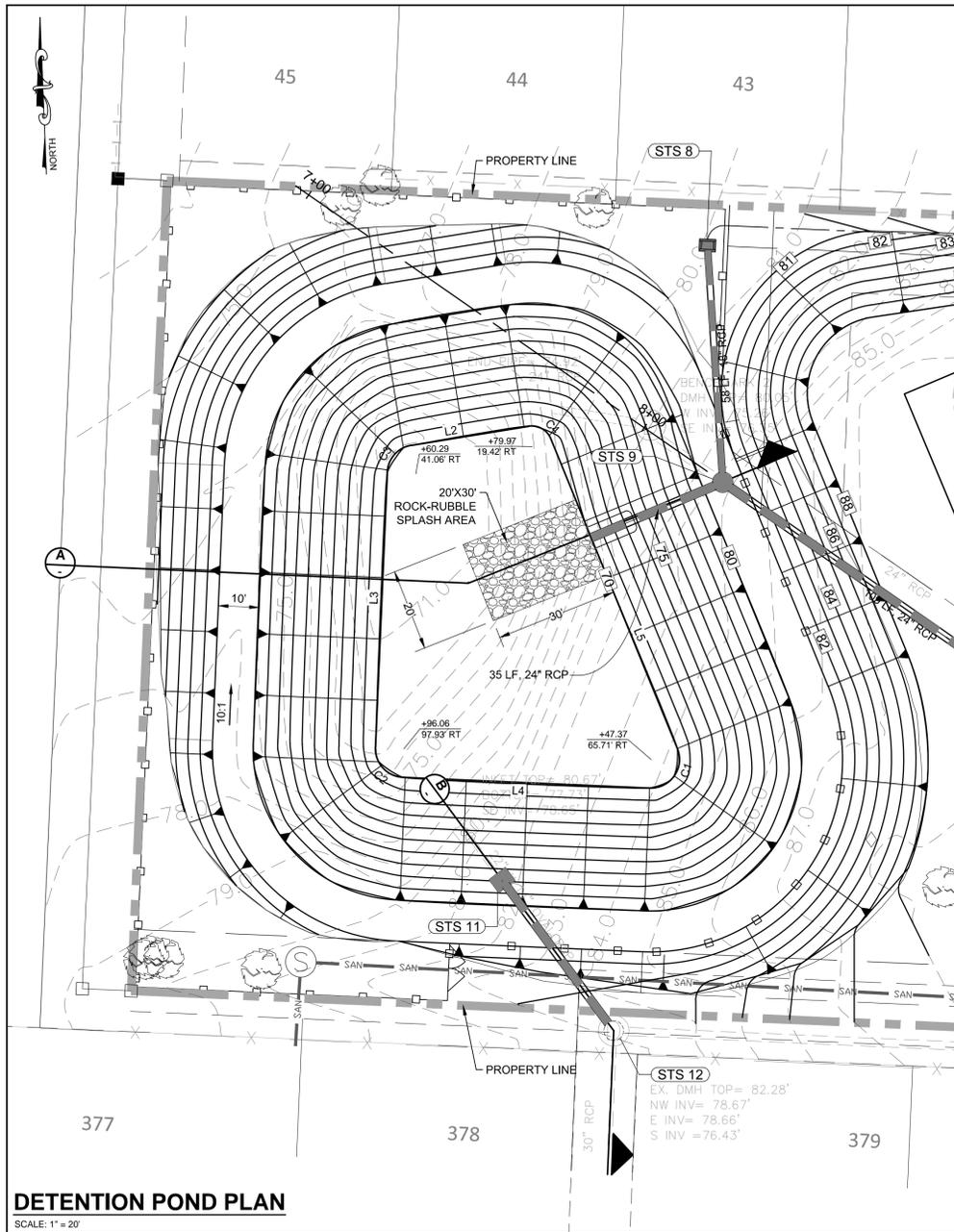
ZARABROOKE, LLC

GRADING AND DRAINAGE PLAN

281 SOUTH BUNNY AVENUE | ORLANDO, FL 32803  
PH: (407) 886.3317 | FAX: (407) 886.5167  
WWW.LOCHRANE.COM

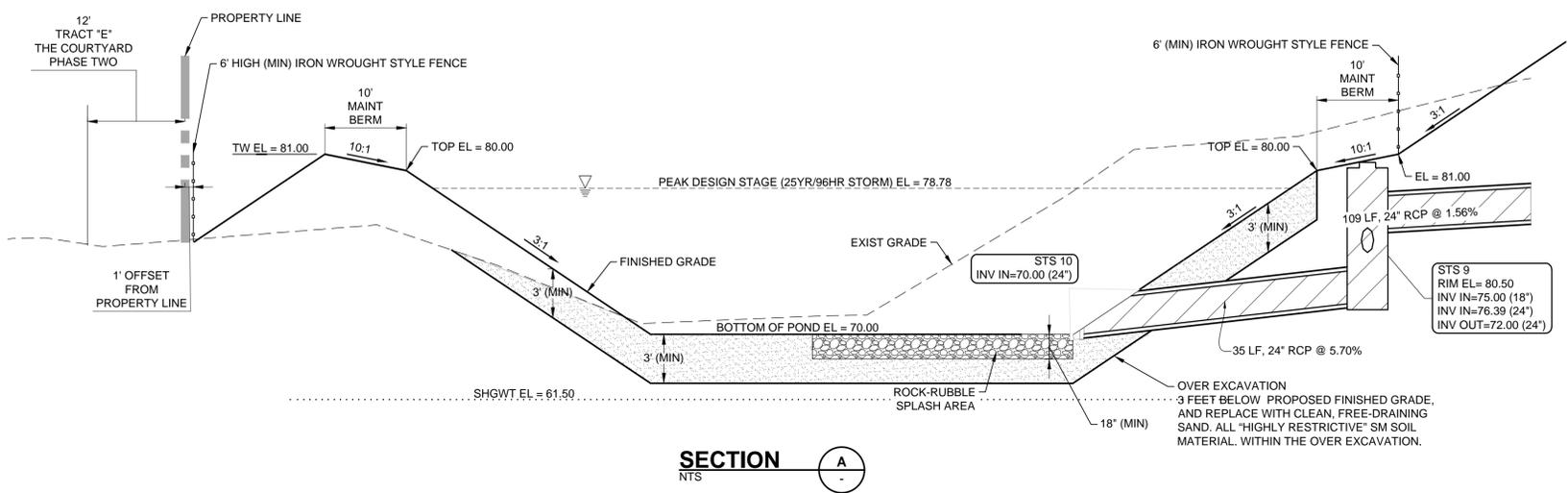
LOCHRANE  
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DRAWING NO. C2.0 SHEET 9 OF 22



**DETENTION POND PLAN**

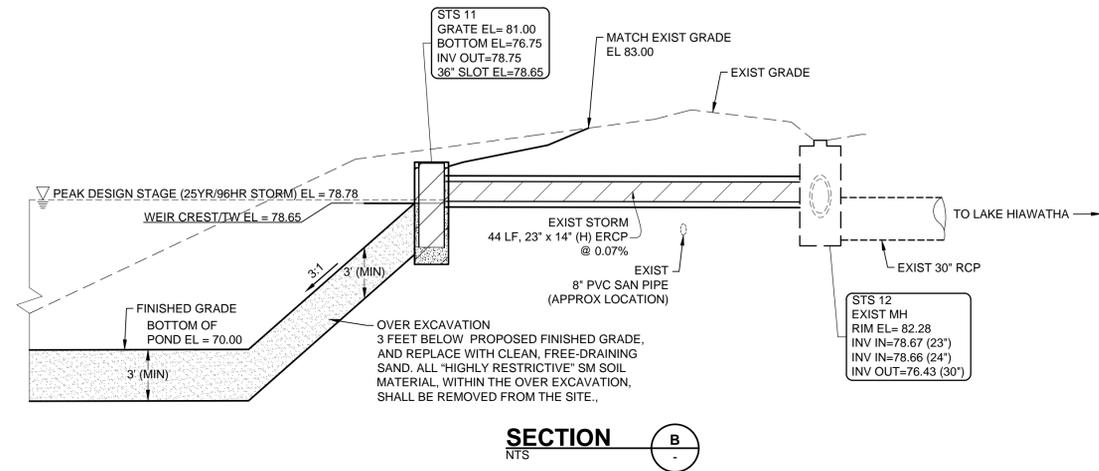
SCALE: 1" = 20'



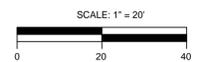
**SECTION A**  
NTS

**DETENTION POND  
BOTTOM GEOMETRY**

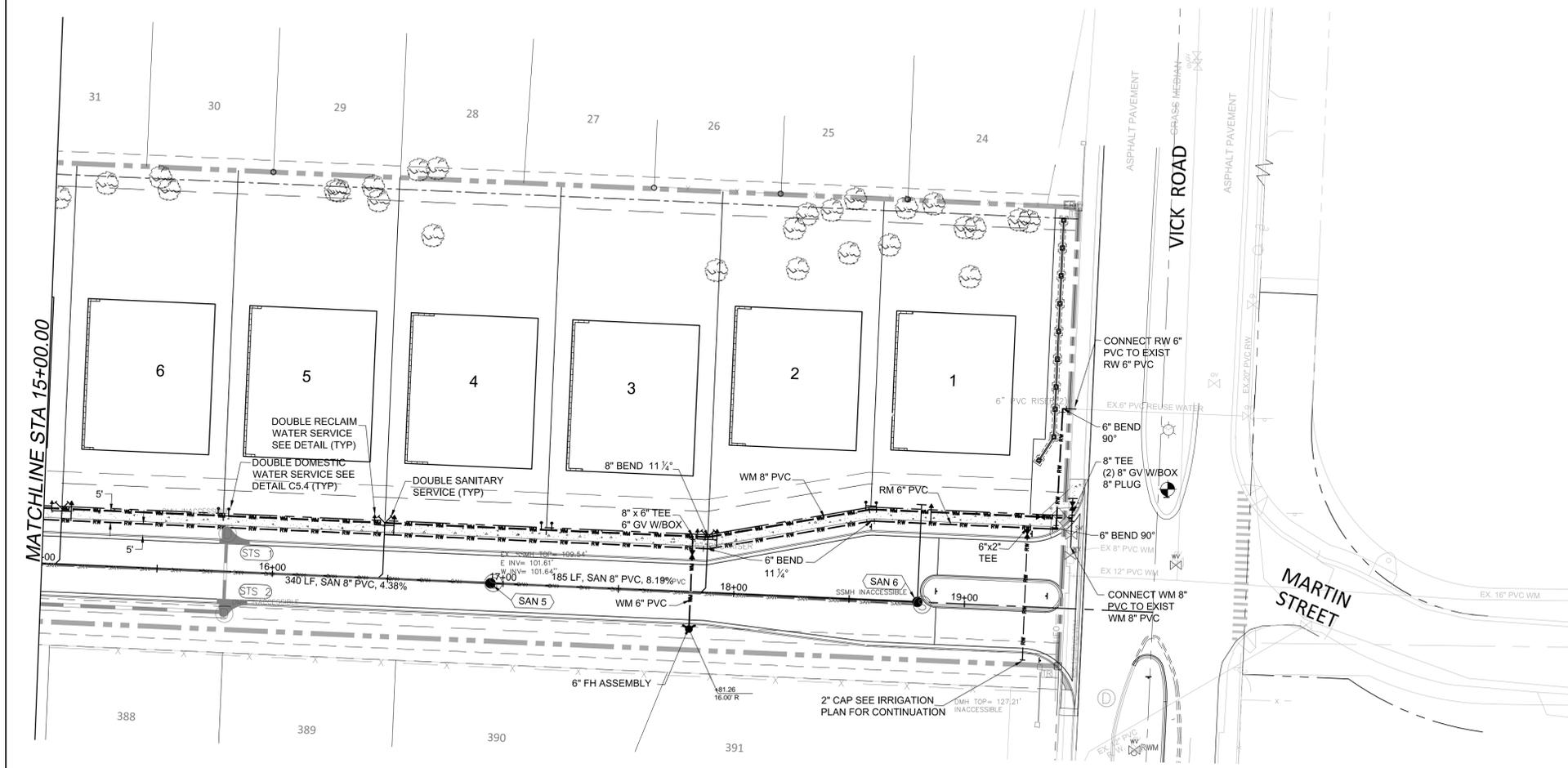
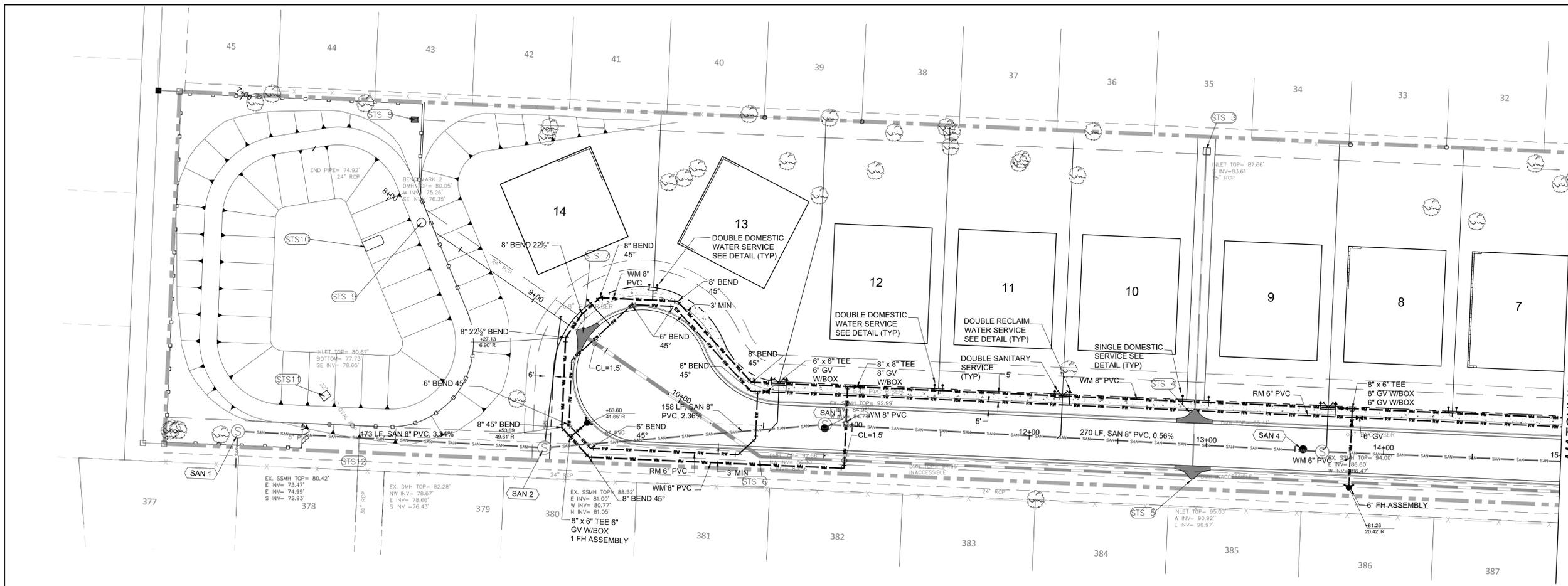
LINE & CURVE TABLE			
LINE #/ CURVE #	LENGTH	BEARING/DELTA	RADIUS
L5	81.73	S22° 17' 58.36"E	
C1	14.02	114.79	7.00
L4	60.59	N87° 30' 34.19"W	
C2	10.99	89.96	7.00
L3	67.19	N2° 27' 03.45"E	
C3	9.58	78.39	7.00
L2	29.18	N80° 50' 28.64"E	
C4	6.71	76.86	5.00



**SECTION B**  
NTS

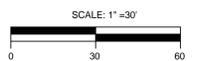


 Consulting Engineers • Surveyors An NVI Company	251 SOUTH BUNNY AVENUE   ORLANDO, FL 32803 PH: (407) 888.3317   FAX: (407) 888.9197 WWW.LOCHRANE.COM CERTIFICATE OF AUTHORIZATION # 00025859
	DETENTION POND PLAN, SECTIONS & DETAILS SHEET 10 OF 22
ZARABROOKE AT VICK & W. MARTIN STREET APOPKA, FLORIDA FOR ZARABROOKE, LLC	RECORD DRAWING THIS DRAWING IS THE PROPERTY OF LOCHRANE CONSULTING ENGINEERS AND SURVEYORS, INC. (LCS). IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. ANY REUSE, REPRODUCTION, OR MODIFICATION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF LCS IS STRICTLY PROHIBITED. THE USER OF THIS DRAWING AGREES TO HOLD LOCHRANE CONSULTING ENGINEERS AND SURVEYORS, INC. HARMLESS FROM ANY AND ALL CLAIMS, DAMAGES, LOSSES, AND EXPENSES, INCLUDING REASONABLE ATTORNEY'S FEES, THAT MAY BE ASSERTED AGAINST LOCHRANE CONSULTING ENGINEERS AND SURVEYORS, INC. BY ANY THIRD PARTY AS A RESULT OF THE USER'S USE OF THIS DRAWING.
DETENTION POND PLAN, SECTIONS & DETAILS PLAN, SECTIONS & DETAILS	ENGINEER: EDGAR GARCIA, P.E. FL LIC. # 769202 DATE: JAN. 29, 2018 CHECKED: JM



SANITARY SEWER SCHEDULE					
STRUCTURE NUMBER	STA/OFF	STRUCTURE TYPE	RIM EL.	INVERT ELEVATIONS	
				IN	OUT
SAN 1	8+04.83 - 155.15RT	EXIST MH (DROP)	80.42	74.99 E 72.93 S	
SAN 2	9+52.39 - 64.54RT	EXIST MH	88.52	81.05 N 81.00 E	81.77 W
SAN 3	10+84.58	EXIST MH	93.62	84.96 E	84.74 W
SAN 4	13+54.58	EXIST MH	94.55	86.60 E	86.47 W
SAN 5	16+94.58	EXIST MH	110.51	101.61 E	101.51 W
SAN 6	18+79.58	EXIST MH	124.30	-	116.77 W

- NOTE:**
- SANITARY SEWER SYSTEM:**
    - OPTION "A" -** CONTRACTOR SHALL REMOVE ALL EXISTING SANITARY SEWER PIPES AND MANHOLE, AND REPLACE WITH NEW MATERIALS. NEW SANITARY SEWER SYSTEM SHALL BE INSTALLED PER INFORMATION SHOWN ON THE SANITARY SEWER SCHEDULE.
    - OPTION "B" -** EXISTING GRAVITY SEWER SYSTEMS SHALL BE CLEARED AND FLUSHED, AND SHALL BE TESTED FOR ALIGNMENT, DEFLECTION, AND INTEGRITY, IN ACCORDANCE TO SECTION 44 OF THE CITY OF APOPKA UTILITIES DESIGN AND CONSTRUCTION MANUAL. EXISTING CONDITION SURVEY SHALL BE PROVIDED TO THE ENGINEER OF RECORD, AND THE CITY OF APOPKA FOR REVIEW AND APPROVAL. ALL TESTING, PROCEDURES, AND VIDEO INSPECTIONS SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE OF CITY INSPECTION PERSONNEL AND CERTIFIED BY THE DEVELOPER'S ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL NECESSARY LABOR AND EQUIPMENT FOR ALL SUCH TESTING AND INSPECTIONS. SANITARY MANHOLES SHALL BE LINED PER CITY OF APOPKA REQUIREMENTS
  - POTABLE WATER / SANITARY SEWER / STORM SEWER SEPARATION:**
    - 2.A.** IN ALL CASES WHERE SANITARY SEWER MAINS CROSS UNDER WATER MAINS WITH LESS THAN 18" OF VERTICAL CLEARANCE, AND IN ALL CASES WHERE SANITARY SEWER MAINS CROSS OVER WATER MAINS, THE SEWER MAIN SHALL BE DR-18 PVC PIPE FOR A DISTANCE OF 20 FEET, CENTERED ON THE POINT OF CROSSING. IN ALL CASES WHERE THE WATER MAIN OR SANITARY SEWER CROSSES UNDER OR OVER THE STORM SEWER MAIN WITH LESS THAN 18 INCHES VERTICAL CLEARANCE, THE WATER MAIN SHALL BE DUCTILE IRON PIPE. THE SANITARY SEWER MAIN SHALL BE SDR-26 PVC PIPE FOR A DISTANCE OF 20 FEET, CENTERED ON THE POINT OF CROSSING.
    - 2.B.** A HORIZONTAL SEPARATION OF 10 FEET SHALL BE MAINTAINED BETWEEN ALL WATER, STORM, AND SANITARY SEWER MAINS. WHERE CONDITIONS DO NOT PERMIT THE 10 FOOT SEPARATION, THE SEWER MAIN MUST BE LAID IN A SEPARATE TRENCH OR THE SAME TRENCH DIVIDED BY A BENCH OF UNDISTURBED EARTH, AND THE SEWER MAIN MUST BE 18 INCHES BELOW THE INVERT OF THE WATER MAIN. IF THE SEPARATION BETWEEN WATER / STORM CAN NOT BE MAINTAINED, THE WATER MAIN MUST BE UPGRADED TO DUCTILE IRON PIPE OR ENCASED IN CONCRETE UNTIL THE SPECIFIED 10 FOOT SEPARATION IS REGAINED. IN ANY CASE WHERE SEPARATE TRENCHES CAN NOT BE DUG, THE SANITARY LINE MUST BE UPGRADED TO DR-18 PVC PIPE.



ENGINEER  
EDGAR G. MARTIN, P.E.  
FL LIC. 176902

JOB #: 1701220  
PRL MGR: EGL  
DESIGNER: EGL  
CHECKED: JM  
DATE: JUN. 29, 2018

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NO. DATE REVISIONS

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at  
VICK & W. MARTIN STREET  
APOPKA, FLORIDA  
FOR  
ZARABROOKE, LLC

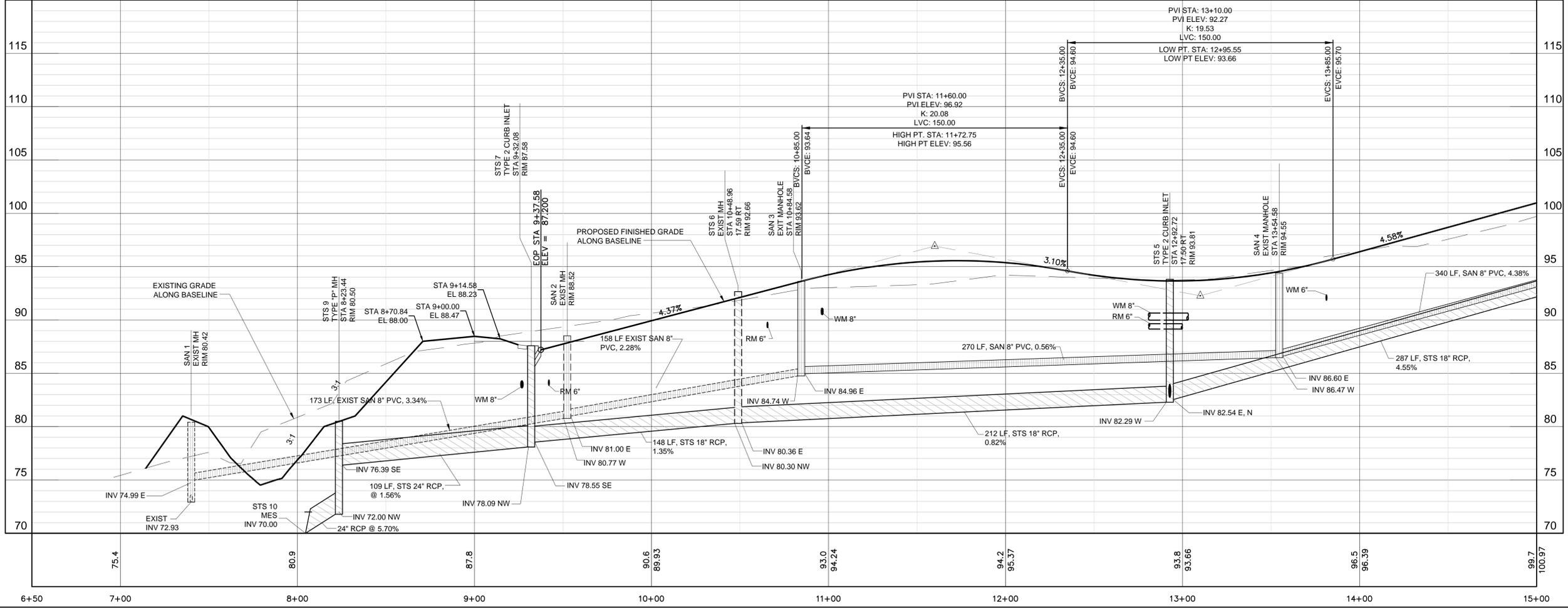
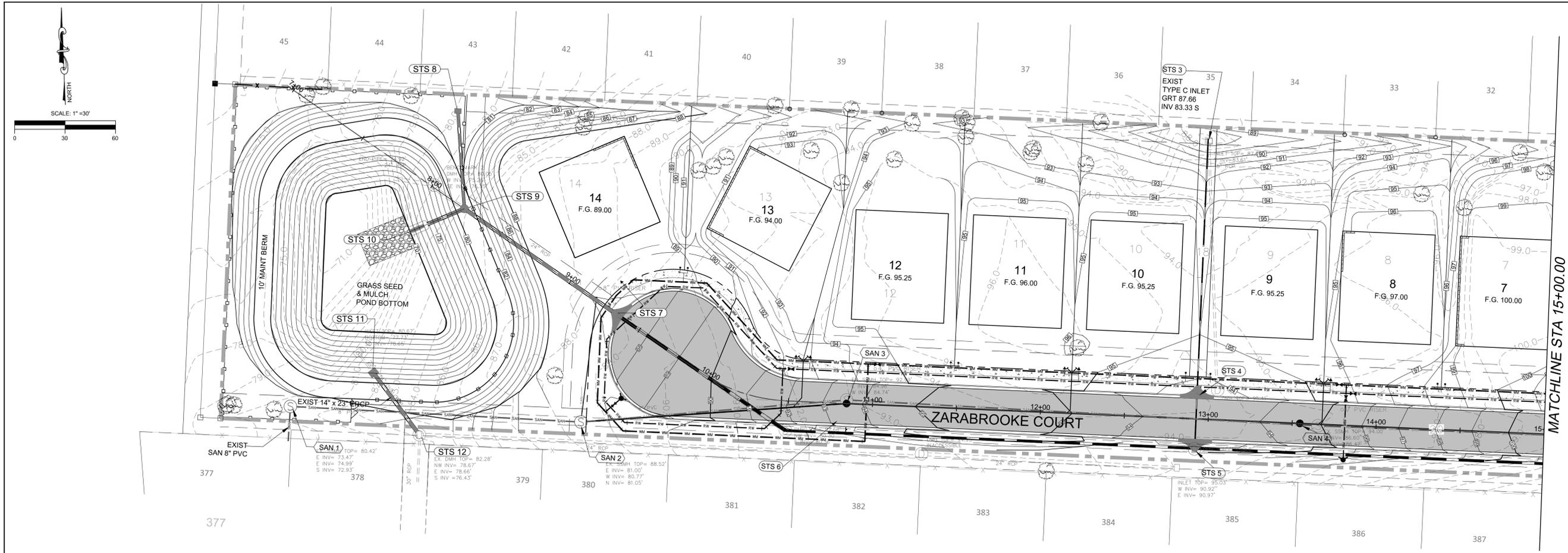
ENGINEER:  
FL LIC. #

201 SOUTH BUNNY AVENUE | ORLANDO, FL 32803  
PH: (407) 886-3317 | FAX: (407) 886-9167  
WWW.LOCHRANE.COM

CERTIFICATE OF AUTHORIZATION # 0002555  
An **ENVIS** Company

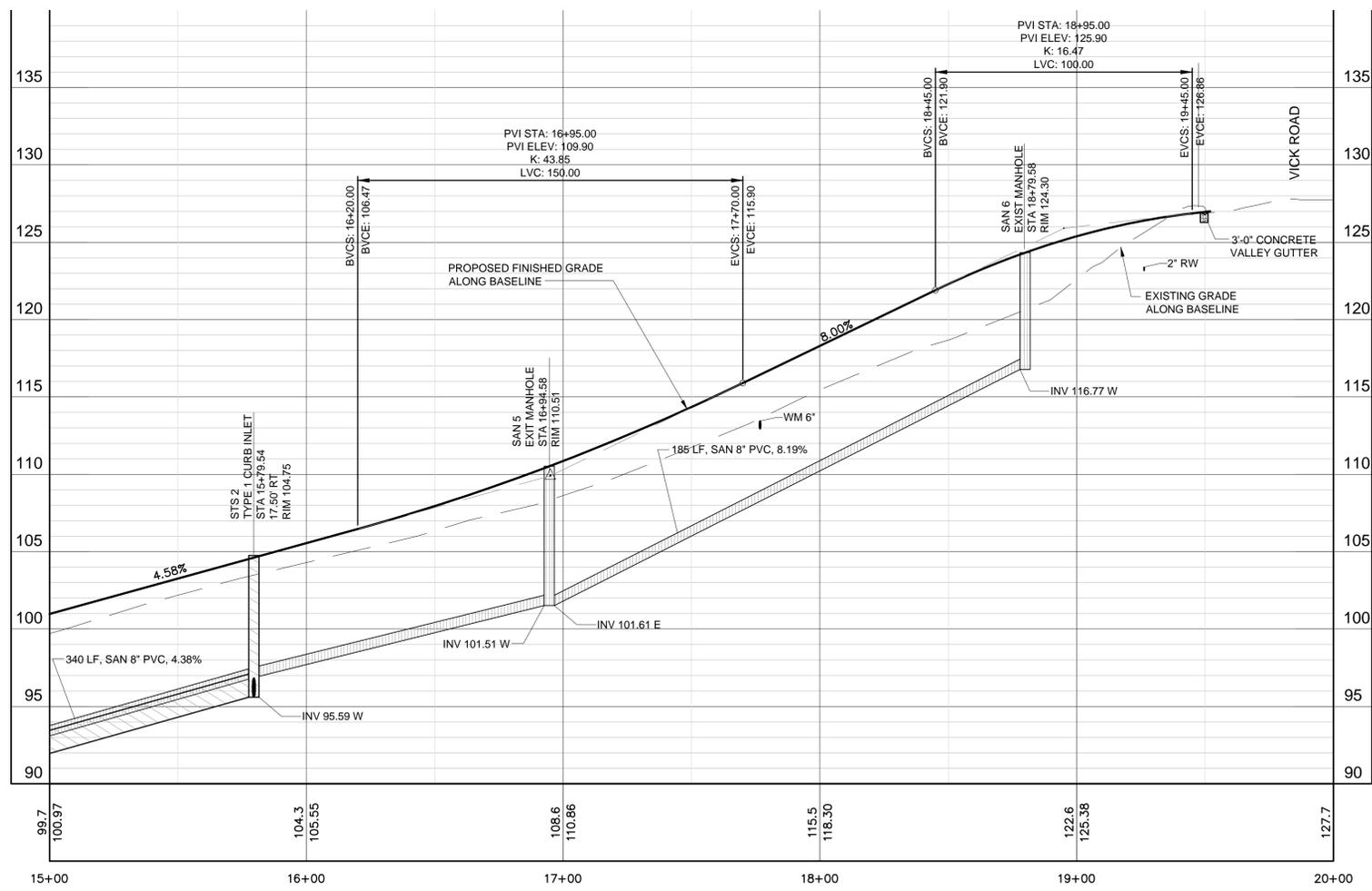
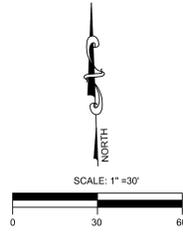
DRAWING NO. C3.0

SHEET 11 OF 22



ENGINEER EDGAR J. MARTIN, P.E. FL LIC. #78902	PRJ. MGR. EGL	DESIGNER EGL	CHECKED JM
DATE: Jan. 04, 2018	REVISIONS		
NO.	DATE	REVISIONS	
1	01/08/17	CITY OF APOPKA REVISIONS	
2	10/28/17	CITY OF APOPKA REVISIONS	
3	10/24/17	SURWMID REVISIONS	
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PLAN & PROFILE			
<b>LOCHRANE</b> Consulting Engineers & Surveyors An <b>ENVIS</b> Company <small>201 SOUTH BUNNY AVENUE   ORLANDO, FL 32803          PH: (407) 886-3317   FAX: (407) 886-9167          WWW.LOCHRANE.COM          CERTIFICATE OF AUTHORIZATION # 0002855</small>			
DRAWING NO. <b>C4.1</b>	SHEET 12	OF 22	

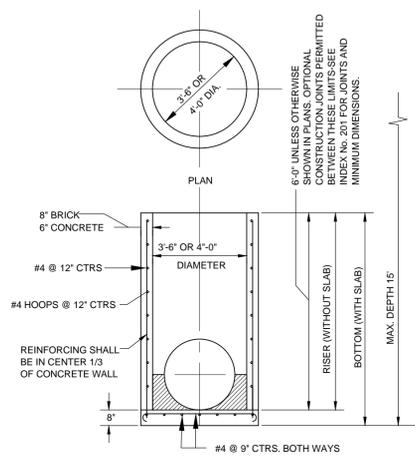
01/07/2018 08:51:03 D:\PLAN & PROFILE\Eng - Jan 04, 2018 - 310pm



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<b>PLAN &amp; PROFILE</b>		<b>ZARABROOKE</b> at <b>VICK &amp; W. MARTIN STREET</b> APOPKA, FLORIDA FOR <b>ZARABROOKE, LLC</b>	
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NO. DATE REVISIONS		JOB #: 1701220 P.L.MGR.: EGL DESIGNER: EGL CHECKED: JM	
DRAWING NO. C4.2		SHEET 13 of 22	

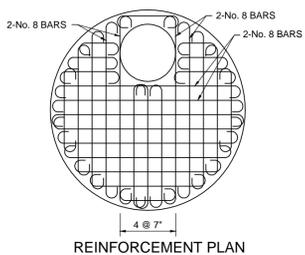
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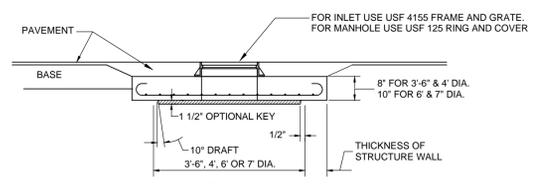


GENERAL NOTES:  
 1. MANHOLE TO HAVE A TYPE P-7T TOP SLAB WITH USF 125 RING AND COVER.  
 2. INLET TO HAVE MODIFIED TYPE P-7T TOP SLAB WITH USF 4155 FRAME AND GRATE.  
 3. WALL THICKNESS AND REINFORCEMENT ARE FOR EITHER REINFORCED CAST-IN-PLACE OR PRECAST CONCRETE UNITS. EXCEPT THAT PRECAST CIRCULAR UNITS MAY BE FURNISHED WITH WALLS IN ACCORDANCE WITH EITHER A.S.T.M. C-478 (UP TO 96\"/>

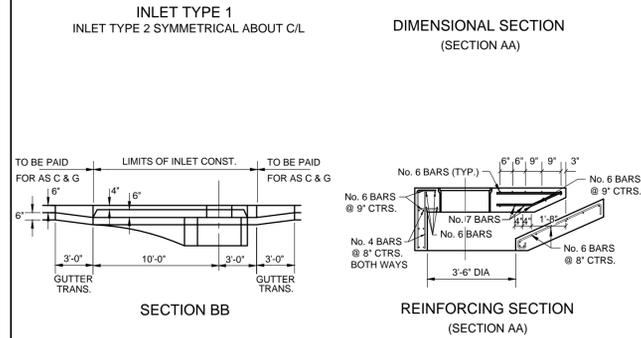
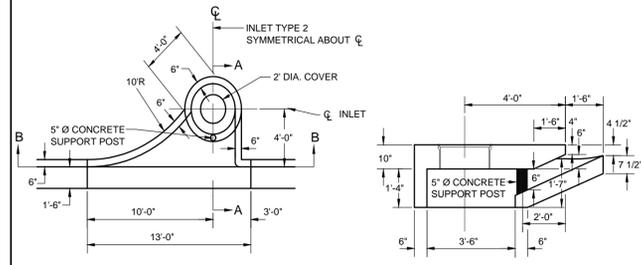
6 TYPE "P" STRUCTURE BOTTOM NTS



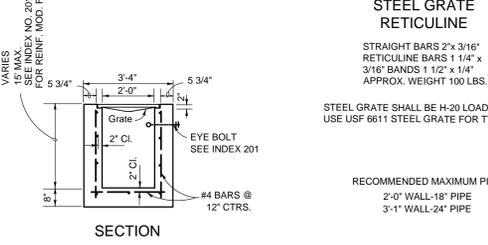
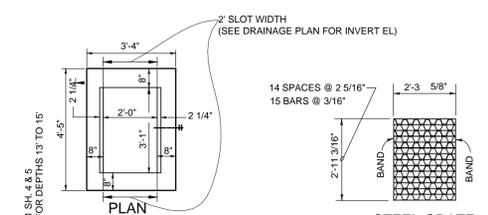
ALL REINFORCEMENT No. 6 BARS EXCEPT 6-No. 8 BARS SHOWN. BARS SPACED @ 6\"/>



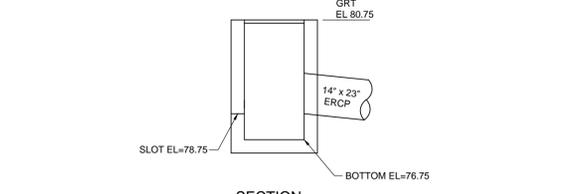
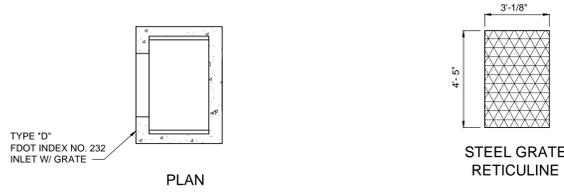
1 TYPE 7 STRUCTURE TOP NTS



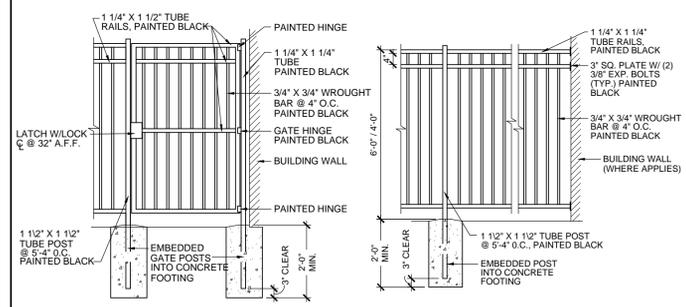
7 CURB INLET TYPE 1 AND 2 (FDOT INDEX 210) NTS



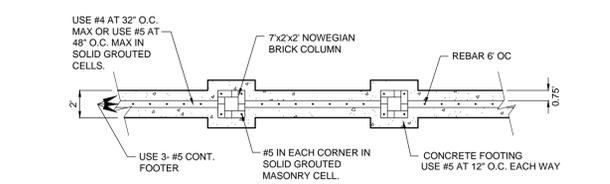
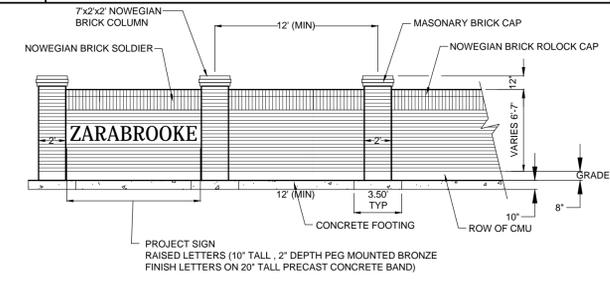
8 FDOT TYPE 'C' INLET NTS



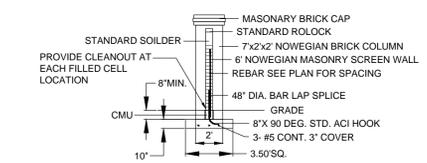
11 CONTROL STRUCTURE NTS



12 WROUGHT FENCE & GATE DETAIL NTS



13 PROJECT SIGN AND SCREEN WALL NTS



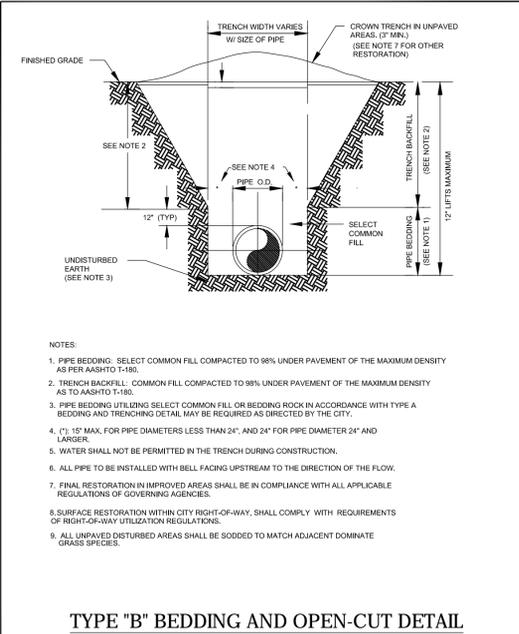
SCREEN WALL NOTES  
 1. WALL DESIGN IS BASED ON MINIMUM 110 MPH WIND LOAD IN ACCORDANCE WITH THE 2001 FLORIDA BUILDING CODE.  
 2. WALL AND FOUNDATION DESIGN IS BASED ON A GRANULAR COHESIONLESS SOIL WITH THE FOLLOWING PROPERTIES:  
 TOTAL UNIT WEIGHT COMPACTED.....100 PCF  
 ALLOWABLE BEARING PRESSURE.....2000 PSF  
 PASSIVE LATERAL COEFFICIENT.....3.00  
 ACTIVE LATERAL COEFFICIENT.....0.33  
 MAXIMUM % PASSING #200 SIEVE.....12  
 3. PROVIDE WALL JOINT AT 20' O.C. MINIMUM. DISCONTINUE HORIZONTAL REINFORCEMENT AND PROVIDE 1-#5 IN SOLID GROUTED CELL ON EACH SIDE OF JOINT.  
 4. CONCRETE WORK SHALL BE IN ACCORDANCE WITH ACI 301.301-89  
 5. SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS  
 6. CONCRETE MASONRY WORK SHALL BE IN ACCORDANCE WITH ACI 530.1-92  
 7. CONCRETE MASONRY UNITS SHALL BE IN ACCORDANCE WITH ASTM C90, GRADE N, TYPE II AND SHALL BE OF A TYPE SUCH THAT THE CORES LINE UP VERTICALLY.  
 8. HOLLOW MASONRY CLAY UNITS SHALL BE IN ACCORDANCE WITH ASTM C652 AND SHALL HAVE A NET COMPRESSIVE STRENGTH OF 5000 PSI.  
 9. MASONRY MORTAR SHALL BE IN ACCORDANCE WITH ASTM C270, TYPE S OR M.  
 10. GROUT FOR MASONRY WORK SHALL BE IN ACCORDANCE WITH ASTM C476, COARSE TYPE, AND SHALL ATTAIN A COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS.  
 11. PROVIDE 9 GAUGE LADDER TYPE JOINT REINFORCING AT 16\"/>

JOB #:	1701220	
ENGINEER:	EDGAR GAGNON, P.E. FL LIC. 176902	
PREL. MGR.:	EGL	
DESIGNER:	EGL	
CHECKED:	JM	
DATE:	Jan. 23, 2018	
NO.	DATE	REVISIONS
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2	10/28/17	CITY OF APOPKA REVISIONS
3	10/24/17	SURVIMOD REVISIONS

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 ENGINEER: ZARABROOKE, LLC

SITE DETAILS  
 ZARABROOKE  
 VICK & W. MARTIN STREET  
 APOPKA, FLORIDA  
 ZARABROOKE, LLC

201 SOUTH BUMBY AVENUE | ORLANDO, FL 32803  
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CITY OF APOPKA  
DESIGN ENGINEERING DIVISION

JANUARY 2014

FIG. 100

**MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S). \***

	PIPE SIZE										
	6"	8"	10"	12"	16"	18"	20"	24"	30"	36"	48"
90° BEND	33	43	51	60							
45° BEND	14	18	22	25							
22-1/2° BEND	7	9	11	12							
11-1/4° BEND	4	5	6	6							
TEE**	1	7	24	44							
REDUCER (ONE SIZE SMALLER)		41	39	40							
DEAD END	74	96	115	136							

\* ONLY RESTRAIN BRANCH PIPE FOR TEES. ONLY RESTRAIN LARGER PIPE FOR REDUCERS  
 \*\* LENGTH ALONG RUN ASSUMED TO BE 18'

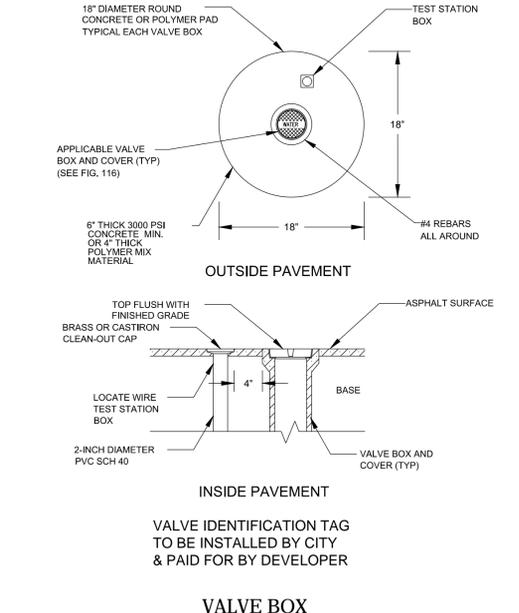
NOTES:  
 1. FITTINGS SHALL BE DUCTILE IRON RESTRAINED JOINT TYPE: FM FITTINGS TO BE LINED WITH PROTEGO 401.  
 2. INSTALL FULL LENGTHS OF PIPE WITH TOTAL LENGTH CONTAINING ONLY RESTRAINED JOINTS EQUAL TO OR GREATER THAN LENGTH SHOWN IN TABLE.  
 3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.  
 4. IN LINE VALVES AND THROUGH RUN OF TEES OUTSIDE LIMITS OF RESTRAINED JOINTS FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.  
 5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, FOR PVC WITH THE FOLLOWING ASSUMPTIONS:  
 TYPE OF PIPE: PVC  
 WORKING PRESSURE: P.S. 150 \*\* FM = 100 P.S.I. / WM OR  
 SOIL DESIGNATION: SMS(SAND SILT) RWM = 150 P.S.I.  
 LAYING CONDITIONS: 3  
 6. FOR PIPE ENCASED IN POLYETHYLENE INCREASE THE GIVEN VALUE BY A FACTOR OF 1.5.  
 7. VALUES NOT LISTED IN THE TABLE TO BE COMPLETED BY THE ENGINEER.

**RESTRAINED PIPE TABLE (PVC)**

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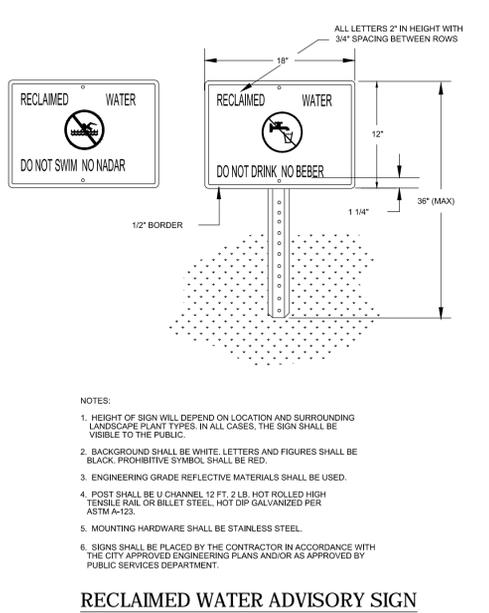
FIG. 105



CITY OF APOPKA  
DESIGN ENGINEERING DIVISION

JANUARY 2014

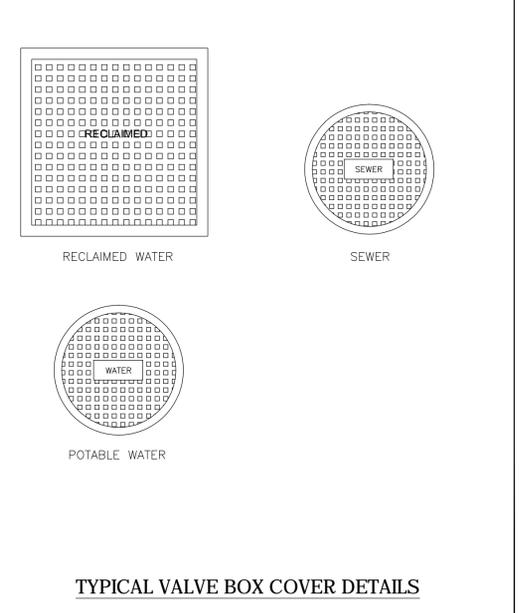
FIG. 109



CITY OF APOPKA  
DESIGN ENGINEERING DIVISION

JANUARY 2014

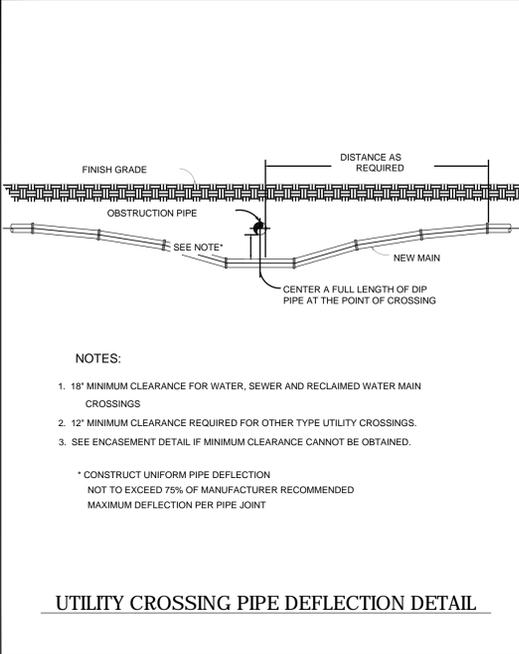
FIG. 115



CITY OF APOPKA  
DESIGN ENGINEERING DIVISION

JANUARY 2014

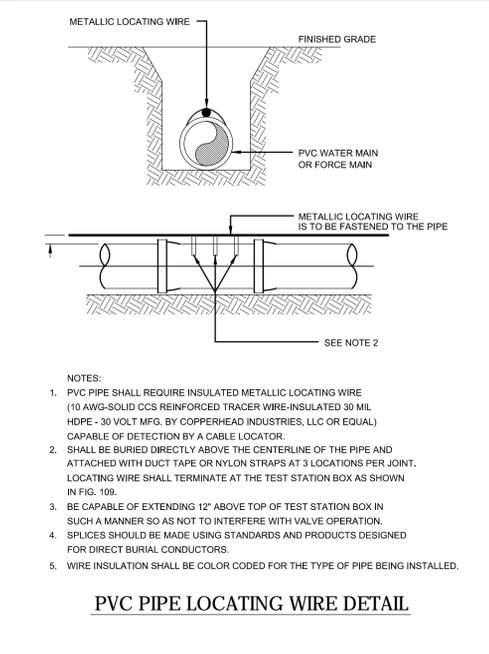
FIG. 116



CITY OF APOPKA  
DESIGN ENGINEERING DIVISION

JANUARY 2014

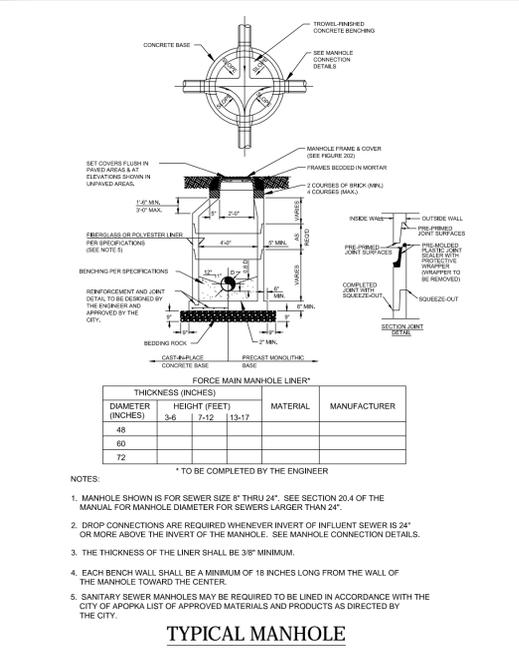
FIG. 117



CITY OF APOPKA  
DESIGN ENGINEERING DIVISION

JANUARY 2014

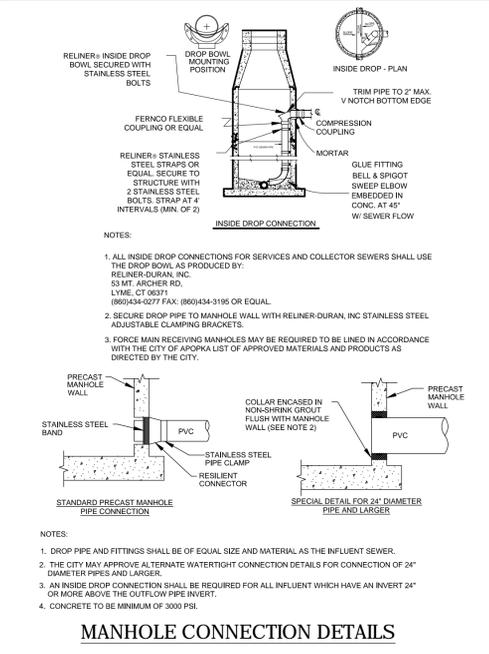
FIG. 118



CITY OF APOPKA  
DESIGN ENGINEERING DIVISION

JANUARY 2015

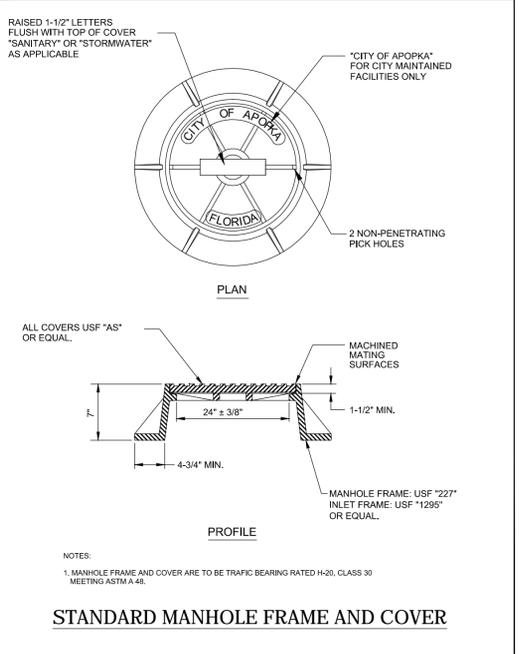
FIG. 200



CITY OF APOPKA  
DESIGN ENGINEERING DIVISION

JANUARY 2015

FIG. 201



CITY OF APOPKA  
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JANUARY 2014

FIG. 202

ENGINEER  
EDGAR A. WILSON, P.E.  
FL. LIC. 17692

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ENGINEER:  
FL. LIC. #

NO. DATE

REVISIONS

DATE: Jan. 04, 2018

CHECKED: JM

DESIGNER: EOL

PREL. MGR.: EOL

JOB #: 1701220

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ZARABROOKE  
at  
VICK & W. MARTIN STREET  
APOPKA, FLORIDA  
FOR  
ZARABROOKE, LLC

---

UTILITY DETAILS

201 SOUTH BUNNY AVENUE | ORLANDO, FL 32803  
PH: (407) 886-3317 | FAX: (407) 886-9187  
WWW.LOCHRANE.COM

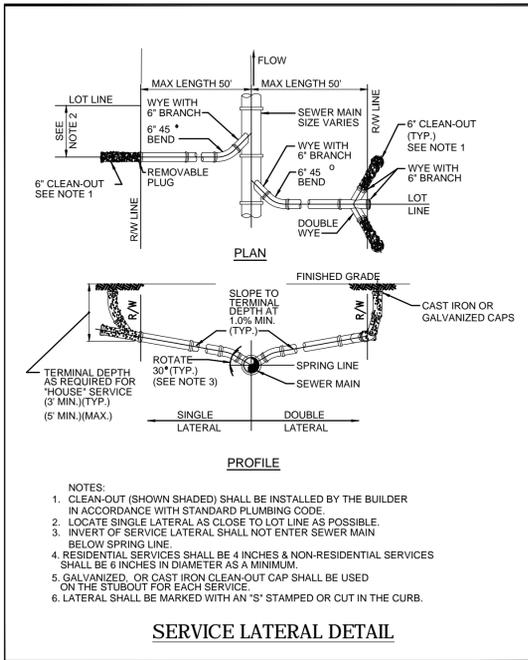
Lochrane  
Consulting Engineers • Surveyors  
An NV5 Company  
CERTIFICATE OF AUTHORIZATION # 082855

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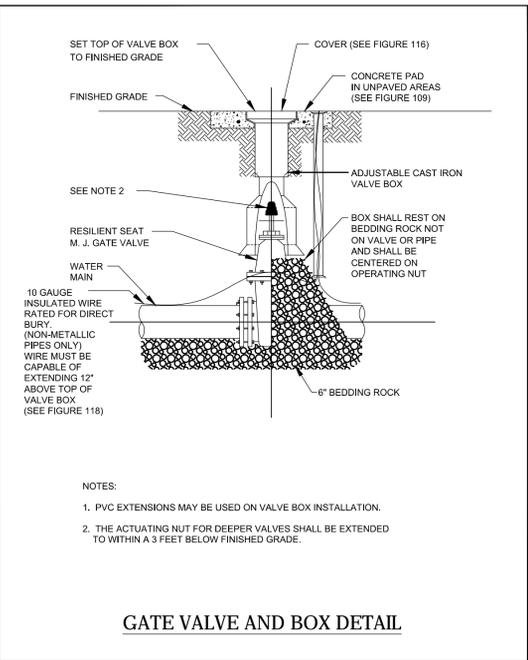
DRAWING NO. C5.3

SHEET 16 of 22

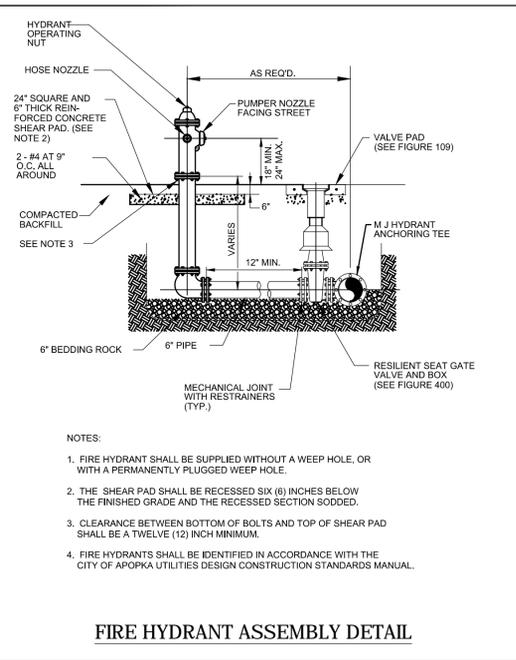
01/07/2018 08:05:03 053.3 UTILITY DETAILS.dwg - Jan 04, 2018 - 6:05pm



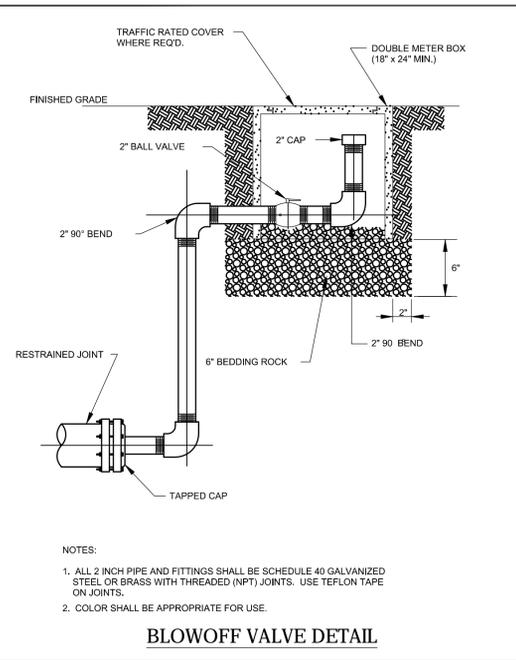
CITY OF APOPKA JANUARY 2014 FIG. 204



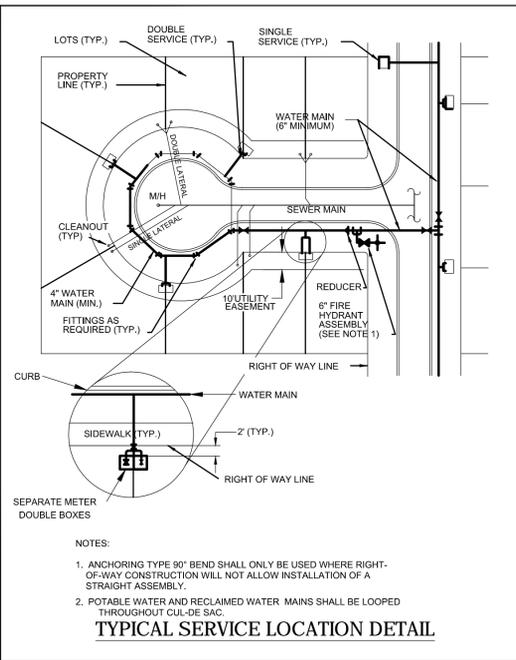
CITY OF APOPKA JANUARY 2014 FIG. 400



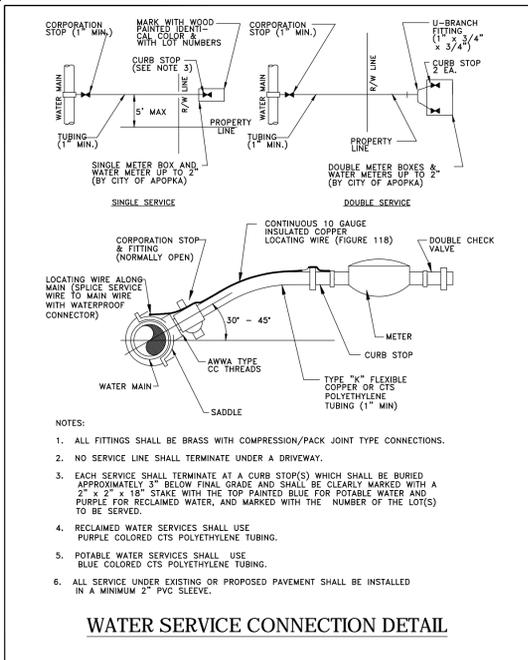
CITY OF APOPKA JANUARY 2014 FIG. 402



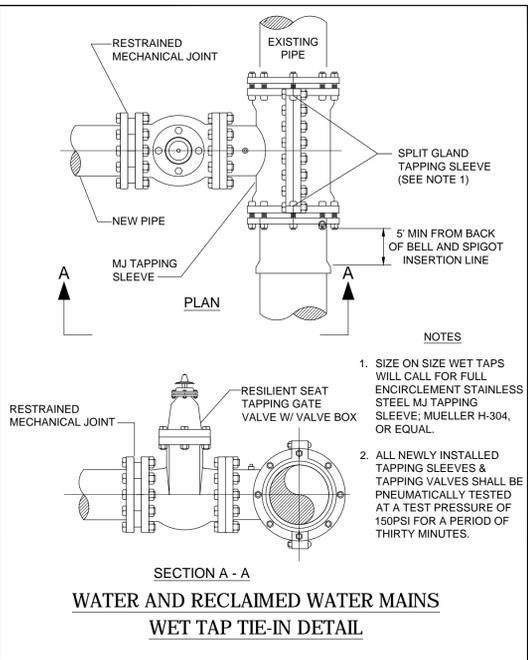
CITY OF APOPKA JANUARY 2014 FIG. 403



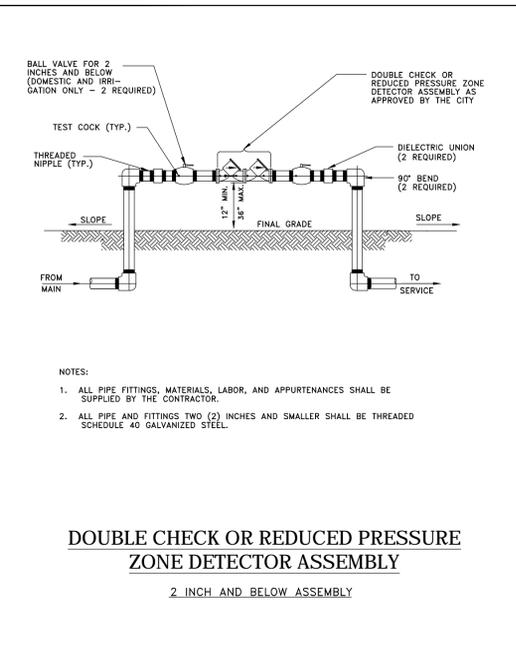
CITY OF APOPKA JANUARY 2014 FIG. 404



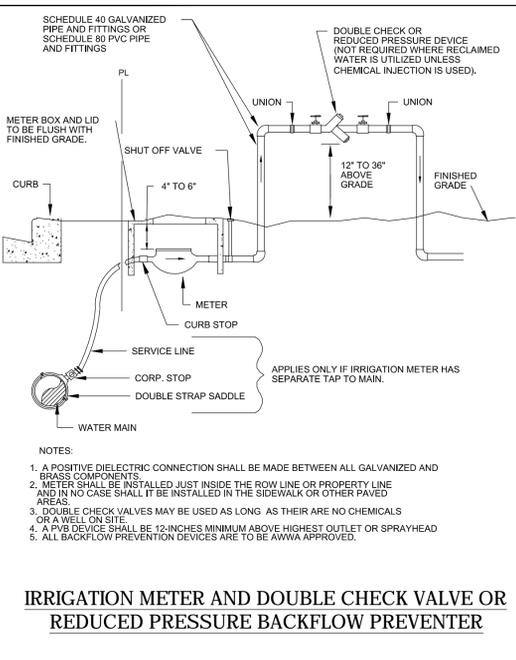
CITY OF APOPKA JANUARY 2014 FIG. 405



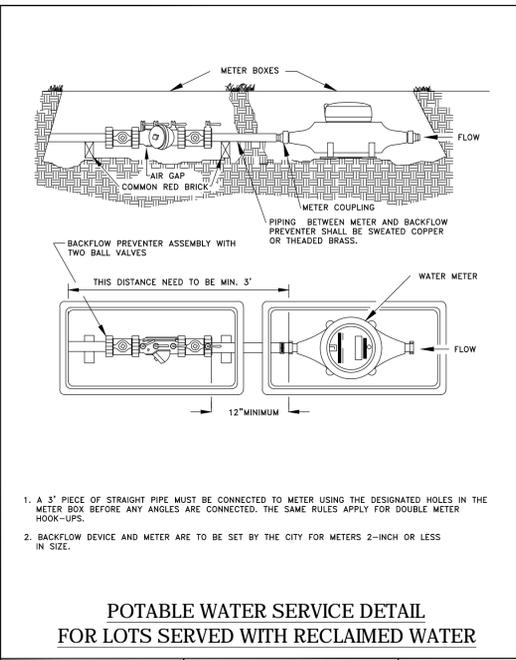
CITY OF APOPKA JANUARY 2014 FIG. 406



CITY OF APOPKA JANUARY 2014 FIG. 500 A



CITY OF APOPKA JANUARY 2014 FIG. 502



CITY OF APOPKA JANUARY 2014 FIG. 505

JOB #:	1701220
ENGINEER:	EDGAR GARCIA, P.E. FL. LIC. #78920
PRJ. MGR.:	EGL
DESIGNER:	EGL
CHECKED:	JM
DATE:	Jan. 04, 2018
NO.	DATE
1	10/28/17 CITY OF APOPKA REVISIONS
2	10/24/17 SURVIVOR REVISIONS
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ENGINEER: EGL

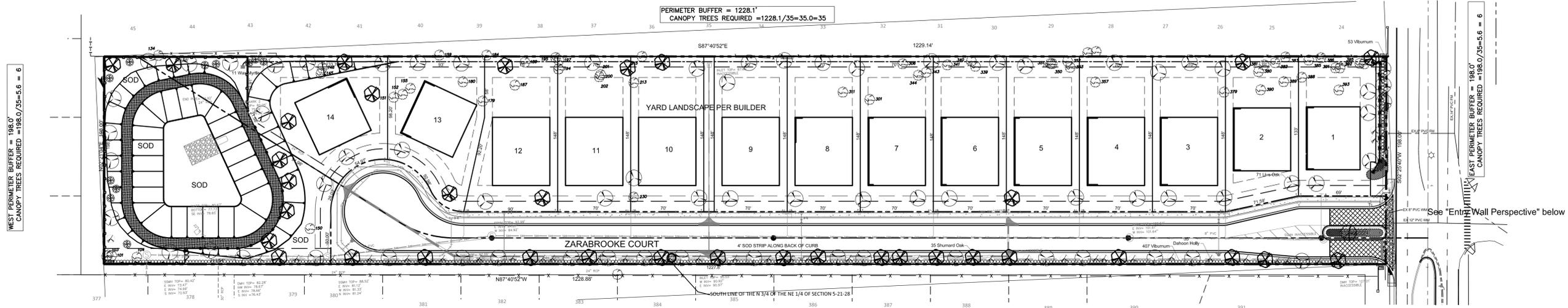
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CERTIFICATE OF AUTHORIZATION # 0008859

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Consulting Engineers & Surveyors  
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Company



# LANDSCAPE PLAN Scale: 1"=50'

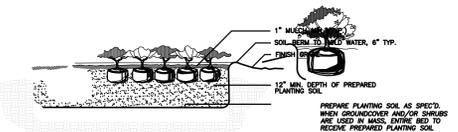
### GENERAL NOTES

- THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE PROJECT SITE PRIOR TO BIDDING THE WORK. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND LOCATION OF PROPOSED IMPROVEMENTS PRIOR TO INITIATING ANY CONSTRUCTION.
- LOCATION OF ALL UTILITIES AND BASE INFORMATION IS APPROXIMATE. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES AND OBSTRUCTIONS PRIOR TO INITIATING WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY DAMAGE TO EXISTING ELEMENTS ABOVE OR BELOW GROUND TO ITS ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
- THE OWNER'S REPRESENTATIVE SHALL HAVE THE RIGHT, AT ANY STAGE OF THE OPERATIONS, TO REJECT ANY AND ALL WORK AND MATERIAL WHICH, IN HIS OPINION, DO NOT MEET WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
- ALL GRADES, DIMENSIONS, AND EXISTING CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR ON-SITE BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB SITE PRIOR TO START OF CONSTRUCTION AND/OR FABRICATION. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THESE DRAWINGS.
- REPORT ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DRAWINGS AND FIELD CONDITIONS TO THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFETY MEASURES DURING CONSTRUCTION OPERATIONS TO PROTECT THE PUBLIC ACCORDING TO ALL APPLICABLE CODES AND RECOGNIZED LOCAL PRACTICES.
- THE CONTRACTOR SHALL COORDINATE ACCESS AND STAGING AREAS WITH THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION. PROVIDE ADDITIONAL MEASURES AS NECESSARY TO MINIMIZE ADVERSE IMPACTS IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES.
- NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN CONSENT OF THE OWNER'S REPRESENTATIVE DURING THE COURSE OF THIS WORK. EXCESS WASTE MATERIAL SHALL BE REMOVED DAILY FROM THE SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND COORDINATION OF WORK WITH OTHER TRADES AND THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL NOTIFY ALL NECESSARY UTILITY COMPANIES 48 HRS MINIMUM PRIOR TO DIGGING FOR FIELD VERIFICATION OF ALL UNDERGROUND UTILITIES.
- ALL EXISTING SITE ROADS, PARKING LOTS, CURBS, UTILITIES, SEWERS, AND OTHER ELEMENTS TO REMAIN SHALL BE FULLY PROTECTED FROM ANY DAMAGE UNLESS OTHERWISE NOTED.

### LANDSCAPE NOTES

- THE CONTRACTOR SHALL REVIEW ARCHITECTURE/ENGINEERING PLANS TO BECOME THOROUGHLY FAMILIAR WITH SURFACE AND SUBSURFACE UTILITIES.
- THE PLANT QUANTITIES SHOWN ON THE LANDSCAPE CONTRACT DOCUMENTS ARE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES AND REPORTING ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO CONTRACT AWARD AND COMMENCEMENT OF WORK.
- ALL INSTALLATION OF PLANT MATERIAL SHALL COMPLY WITH APPLICABLE JURISDICTIONAL CODES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS ASSOCIATED WITH THIS WORK.
- PRIOR TO PLANTING INSTALLATION, THE CONTRACTOR SHALL CONFIRM THE AVAILABILITY OF ALL THE SPECIFIED PLANT MATERIALS. SUBMIT DATED PHOTOGRAPHS OF TREE MATERIAL AND SPECIMEN PLANT MATERIAL TO THE OWNER'S REPRESENTATIVE FOR REVIEW.
- ALL PLANT MATERIAL SIZES SPECIFIED ARE MINIMUM SIZES. CONTAINER SIZE SHALL BE INCREASED IF NECESSARY TO PROVIDE OVERALL PLANT SIZE SPECIFIED.
- IF PLANT MATERIAL DOES NOT COMPLY WITH THE REQUIREMENTS AS SPECIFIED HEREIN, THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT SUCH PLANTS AND REQUIRE THE CONTRACTOR TO REPLACE REJECTED WORK AND CONTINUE SPECIFIED MAINTENANCE UNTIL REINSPECTED AND FOUND TO BE ACCEPTABLE.
- THE CONTRACTOR SHALL TEST THE PROJECT SOILS TO VERIFY THAT THE SOILS ON-SITE ARE ACCEPTABLE FOR PROPER GROWTH OF PLANT MATERIALS AND ADEQUATE DRAINAGE IN PLANT BEDS AND PLANTERS. THE CONTRACTOR SHALL COORDINATE THE LOCATION AND PROCUREMENT OF EXISTING ON-SITE SOIL SAMPLES WITH THE OWNER'S REPRESENTATIVE. REPRESENTATIVE SAMPLES SHALL BE SUBMITTED TO A CERTIFIED TESTING LABORATORY FOR ANALYSIS. THE FINDINGS, TOGETHER WITH RECOMMENDATIONS FOR AMENDING THE SOILS SHALL BE REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE AND PRIOR TO DELIVERY AND INSTALLATION OF PLANT MATERIALS AT THE JOB.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR STABILITY AND PLUMB CONDITION OF ALL TREES AND SHRUBS, AND SHALL BE LEGALLY LIABLE FOR ANY DAMAGE CAUSED BY INSTABILITY OF ANY PLANT MATERIALS. STAKING OF TREES OR SHRUBS SHALL BE DONE IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL INSURE ADEQUATE VERTICAL DRAINAGE IN ALL PLANT BEDS AND PLANTERS. IF INADEQUATE VERTICAL DRAINAGE IS ENCOUNTERED, THE CONTRACTOR SHALL SUBMIT RECOMMENDATIONS FOR PROVIDING ADEQUATE DRAINAGE TO THE OWNER'S REPRESENTATIVE.
- PEG SOD ON SLOPES GREATER THAN 3:1.
- THE CONTRACTOR SHALL BEAR ALL COSTS OF TESTING OF SOILS, AMENDMENTS, ETC. ASSOCIATED WITH THE WORK.
- CONTRACTOR SHALL FIELD-ADJUST LOCATION OF PLANT MATERIAL PRIOR TO INITIATING INSTALLATION FOR THE REVIEW AND APPROVAL OF THE OWNER'S REPRESENTATIVE.
- ALL PLANT MATERIAL SHALL BE IN FULL AND STRICT ACCORDANCE WITH FLORIDA NO. 1 GRADE, ACCORDING TO THE "GRADES AND STANDARDS FOR NURSERY PLANTS" PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.
- ALL PLANTING BEDS SHALL BE TOP-DRESSED WITH A 1" LAYER OF MULCH AS SPECIFIED. ALL TREES SHALL HAVE NO MORE THAN 1" THICK, 24" RADIUS (FROM THE TRUNK) MULCH RING PLACED ON TOP OF THE ROOT BALL.
- SHRUB AND GROUND COVER BED QUANTITIES ARE INDICATED ON THE PLANT LIST. PLANT ACCENT SHRUBS AND TREES AS SHOWN ON THE LANDSCAPE PLANTING PLANS WHEN INDIVIDUAL PLANTS ARE DELINEATED.
- PALM HEIGHTS, IF INDICATED ON THE PLANS, REFER TO CLEAR TRUNK (C.T.), GRAY WOOD (G.W.), OR OVERALL HEIGHT (O.A.) AS SPECIFIED ON THE PLANT LIST.
- CONTRACTOR SHALL COORDINATE ALL PLANTING WORK WITH IRRIGATION WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HAND WATERING AS REQUIRED TO SUPPLEMENT IRRIGATION WATERING AND RAINFALL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR HAND WATERING IN ALL PLANTING AREAS, REGARDLESS OF THE STATUS OF EXISTING OR PROPOSED IRRIGATION.
- CONTRACTOR SHALL REGRADE ALL AREAS DISTURBED BY PLANT REMOVAL, RELOCATION, AND/OR INSTALLATION WORK.
- MAINTENANCE SHALL BEGIN AFTER EACH PLANT HAS BEEN INSTALLED AND SHALL CONTINUE UNTIL THE DATE OF SUBSTANTIAL COMPLETION. MAINTENANCE INCLUDES WATERING, PRUNING, WEEDING, MULCHING, REPLACEMENTS OF SICK OR DEAD PLANTS, AND ANY OTHER CARE NECESSARY FOR THE PROPER GROWTH OF THE PLANT MATERIAL.

- UPON COMPLETION OF ALL LANDSCAPING, AN INSPECTION FOR SUBSTANTIAL COMPLETION OF THE WORK SHALL BE HELD. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE FOR SCHEDULING THE INSPECTION AT LEAST SEVEN (7) DAYS PRIOR TO THE ANTICIPATED INSPECTION DATE.
- CONTRACTOR SHALL SUBMIT WRITTEN GUARANTEE OF SURVIVABILITY OF ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION.
- CONTRACTOR MUST APPROVE ALL GRADED AREAS PRIOR TO THE COMMENCEMENT OF PLANTING.
- THE CONTRACTOR SHALL ENGAGE A QUALIFIED ARBORIST WHO HAS SUCCESSFULLY COMPLETED TREE PROTECTION AND TREE TRIMMING WITH FIVE YEARS OR MORE EXPERIENCE, TO PERFORM THE FOLLOWING WORK:
  - CONTRACTOR SHALL PROTECT EXISTING VEGETATION TO REMAIN AS SHOWN ON DRAWINGS OR BY MEANS APPROVED BY THE OWNER'S REPRESENTATIVE.
  - CONTRACTOR TO CLEAN, PRUNE, AND SHAPE EDGES OF EXISTING VEGETATION AS DIRECTED BY OWNER'S REPRESENTATIVE. CREATE SMOOTH BED LINES AROUND EXISTING VEGETATION.
  - PERFORM INITIAL PRUNING OF BRANCHES AND STIMULATION OF ROOT GROWTH WHERE REMOVED TO ACCOMMODATE NEW CONSTRUCTION.
  - PERFORM TREE REPAIR WORK FOR DAMAGE INCURRED BY NEW CONSTRUCTION.
  - CONTRACTOR SHALL REPLACE (BY EQUAL SIZE AND QUALITY) ANY AND ALL EXISTING PLANT MATERIAL DISTURBED OR DAMAGED BY PLANT REMOVAL, RELOCATION, AND/OR INSTALLATION WORK.
  - IF TREES ARE RELOCATED, CONTRACTOR SHALL PROVIDE TEMPORARY IRRIGATION SYSTEM.



# ENTRY WALL PERSPECTIVE

### TREE REPLACEMENT PLAN:

TOTAL SITE NEW = 107 CANOPY, 53 UNDERSTORY  
REPLACEMENT INCHES = 160 X 3" = 480"  
TOTAL SITE SAVED = 1,054"  
TOTAL INCHES POST DEVELOPMENT 1,534"

### PLANT SCHEDULE

Quan.	Common Name	Botanical Name	Size	Spacing
35	Shumard Oak	Quercus shumardii	3" Caliper DBH; 12' Height	As Shown
71	Live Oak	Quercus virginiana	3" Caliper DBH; 12' Height	As Shown
1	Magnolia	Magnolia grandiflora	3" Caliper DBH; 10' Height	As Shown
42	Dahoon holly	Ilex cassine	3" Caliper DBH; 10' Height	As Shown
11	Wax Myrtle	Myrica cerifera	3" Caliper DBH; 10' Height	As Shown
25	Indian Hawthorn	Raphiropes indica	3 Gallon; 15-18" x 15-18"	As Shown
460	Viburnum	Viburnum odoratissimum	3 Gallon; 30" Height	As Shown
36	Lorepetalum	Loropetalum chinensis	3 Gallon; 15-18" x 15-18"	24" on Center
350	Dwarf Confederate Jasmine	Trachelospermum asiaticum	1 Gallon; 9-12" spread	24" on Center
TBD	St. Augustine Floritam	Stenotaphrum secundatum 'Floritam'		NA
ALTERNATE	Bahiagrass	Paspalum Notatum 'Argentine'		NA
TBD	Pine bark	NA		3" thick in all planting beds

- \*NOTE:  
1. THE FINAL LANDSCAPE PLAN MAY VARY IN THE DISTRIBUTION OF TREE TYPE, DBH, OR SPECIES BUT THE TOTAL INCHES PROPOSED MUST BE PROVIDED.  
2. THE DEVELOPER REQUESTS THE 9' OF REQUIRED MISSING REPLACEMENT TREES, BE WAIVED BY THE CITY IF THE CITY DETERMINES THAT THE REMAINING NUMBER OF TREES PRESERVED ON SITE AND THE PROPOSED 780" OF NEW CALIPER ARE OF SUFFICIENT NUMBER AND QUALITY TO SUBSTANTIALLY COMPLY WITH THE PURPOSE AND INTENT OF THE CODE.  
3. ALL TREES LOCATED IN THE ENTRY AND RETENTION AREA WILL BE PLANTED BY THE DEVELOPER. ALL TREES LOCATED ON LOTS AND ALONG ZARABROOKE CT WILL BE PLANTED BY THE BUILDER AND INSTALLED PRIOR TO CERTIFICATE OF OCCUPANCY OF THE RESIDENCE.

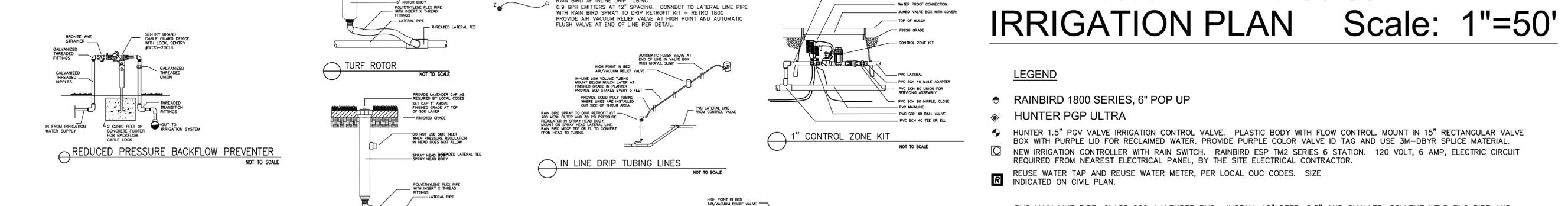
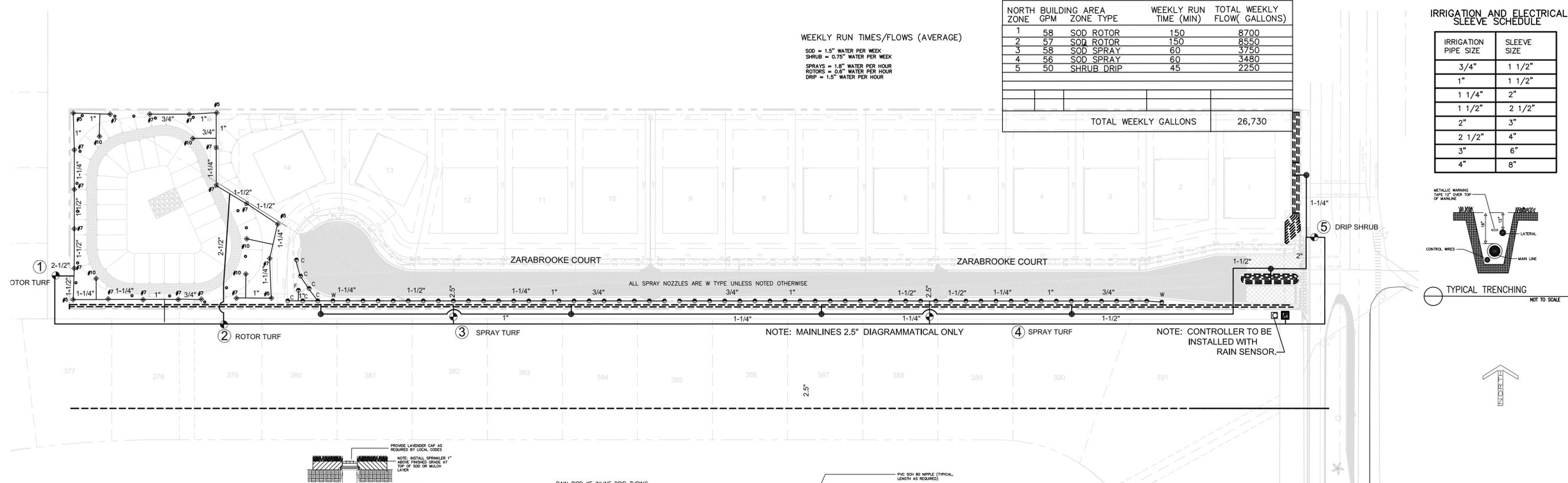
IF THIS SHEET IS LESS THAN 24" X 36" IT IS A REDUCED DRAWING

REV	DATE	REVISION
1	10.16.2017	CIVIL MODIFICATIONS
2	1.30.2018	CITY COMMENTS

R. Miller ARCHITECTURE, INC.  
125 South Swoope Avenue  
Suite 105  
Maitland, Florida 32789  
P-407.539.2412  
F-407.539.2041  
RMillerArchitecture.com

ZARABROOKE  
VICK & MARTIN STREET  
APOPKA, FLORIDA

PROJECT:  
DATE:  
DRAWN BY:  
CHECKED BY:  
TITLE:  
LANDSCAPE PLAN  
SCALE: AS NOTED  
SHEET:  
L-1



- IRRIGATION NOTES**
- SOME PIPE LINES ARE DRAWN OFF SET FOR CLARITY. INSTALL ALL IRRIGATION LINES IN LANDSCAPED AREAS.
  - REFER TO THE LANDSCAPE PLANS WHEN TRENCHING TO AVOID TREE ROOT BALLS AND TO INSTALL HEADS AT APPROPRIATE LOCATIONS.
  - ADJUST ALL NOZZLES TO REDUCE OVERTHROW ON PAVING & WALLS. THROTTLE ALL IRRIGATION CONTROL VALVES AS REQUIRED TO PREVENT FOGGING. SET CONTROLLER RUN TIMES TO MATCH PLANT WATER NEEDS AND SOIL CONDITIONS.
  - INSTALL RISERS 10" FROM WALLS OR BUILDINGS, AND 24" FROM PAVED SURFACES. PAINT ALL RISERS AND SUPPORTS FLAT BLACK.
  - INSTALL POP-UP HEADS 18" FROM WALLS, 6" FROM WALKS, DECKS AND CURBS, 6 FEET FROM CURBLESS ROADS, AND 30" FROM THE END OF PARKING SPACES. PROVIDE LAVENDER CAPS AS REQUIRED.
  - SET TOP OF POP-UP HEAD CAPS 1" ABOVE FINISHED GRADE PRIOR TO SOD OR MULCH INSTALLATION.
  - REFER TO UTILITY PLANS PRIOR TO TRENCHING. THE IRRIGATION INSTALLER SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE TO UTILITIES CAUSED BY THEIR WORK DURING THE PROJECT.
  - ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE AGAINST ALL DEFECTS IN EQUIPMENT AND WORKMANSHIP.
  - ELECTRIC POWER SUPPLY FOR THE IRRIGATION CONTROLLER SHALL BE BROUGHT TO A JUNCTION BOX AT THE CONTROLLER LOCATION BY THE ELECTRICAL CONTRACTOR. IRRIGATION INSTALLER TO PROVIDE ELECTRICAL PERMITS AND LICENSED ELECTRICIAN TO CONNECT THE IRRIGATION CONTROLLER EQUIPMENT TO THE POWER SUPPLY.
  - IRRIGATION WATER CONNECTIONS AND SYSTEM CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS OF LOCAL CODES FOR IRRIGATION INSTALLATION, SIGNAGE, PLACARDS AND CONNECTIONS TO THE RECLAIMED WATER SUPPLY. THE TERM LAVENDER COLOR ON THESE PLANS REFERS TO PANTONE COLOR #512, PER PLUMBING CODES AND THE USE OF RECLAIMED WATER FOR LANDSCAPE IRRIGATION.
  - IRRIGATION INSTALLER TO ACQUIRE ALL PERMITS AND UTILIZE ALL SAFETY PRECAUTIONS REQUIRED TO WORK IN ROW OF ROADWAY.
  - SIXTY (60) PSI MINIMUM STATIC WATER PRESSURE IS REQUIRED FOR THE EFFICIENT OPERATION OF THE IRRIGATION SYSTEM AS DESIGNED. VERIFY THE MINIMUM STATIC WATER PRESSURE AND VOLUME IS AVAILABLE AT THE PROJECT SITE PRIOR TO BEGINNING THE IRRIGATION INSTALLATION. NOTIFY THE LANDSCAPE ARCHITECT IN WRITING IF THE MINIMUM STATIC WATER PRESSURE OR WATER VOLUME IS NOT AVAILABLE.
  - AT THE END OF PARKING SPACES PLACE HEADS IN LINE WITH PARKING STRIPES OR 2.5 FEET FROM BACK OF CURB. (TYPICAL)
  - TREE BUBBLER ON FLEX PE PIPE. ALL NEW TREES IN ROTOR ZONE 1 & 2.

- LEGEND**
- RAINBIRD 1800 SERIES, 6" POP UP
  - HUNTER PGP ULTRA
  - HUNTER 1.5" PGV VALVE IRRIGATION CONTROL VALVE. PLASTIC BODY WITH FLOW CONTROL. MOUNT IN 15" RECTANGULAR VALVE BOX WITH PURPLE LID FOR RECLAIMED WATER. PROVIDE PURPLE COLOR VALVE ID TAG AND USE 3M-DBYR SPLICE MATERIAL.
  - NEW IRRIGATION CONTROLLER WITH RAIN SWITCH. RAINBIRD ESP TM2 SERIES 6 STATION. 120 VOLT, 6 AMP, ELECTRIC CIRCUIT REQUIRED FROM NEAREST ELECTRICAL PANEL, BY THE SITE ELECTRICAL CONTRACTOR.
  - REUSE WATER TAP AND REUSE WATER METER, PER LOCAL OUC CODES. SIZE INDICATED ON CIVIL PLAN.
- SIZE**
- PVC MAIN LINE PIPE. CLASS 200, LAVENDER PVC. INSTALL 18" DEEP. 2.5" AND SMALLER, SOLVENT WELD PVC PIPE AND FITTINGS. 3" AND LARGER, GASKET JOINT PIPE AND DUCTILE IRON GASKET JOINT FITTINGS AND TRUST BLOCKS.
  - PVC LATERAL LINE PIPE. CLASS 315, LAVENDER PVC. INSTALL 12" DEEP. 2.5" AND SMALLER, SOLVENT WELD PVC PIPE AND FITTINGS.
  - PVC SLEEVE PIPE. SCHEDULE 40, PVC. SOLVENT WELD PVC PIPE AND FITTINGS. ALL PAVEMENT CROSSINGS
- LOW VOLUME**
- DRIP IRRIGATION VALVE, FILTER AND REGULATOR ASSEMBLY. 1-15 GPM (75") - HUNTER DRIP ZONE KIT (ACZ-075-25)
  - 2-20 GPM (17") - HUNTER DRIP ZONE KIT (CZ-101-25)
  - 40-60 GPM (1.5") - HUNTER DRIP ZONE KIT (CZ-151-40)
- DRIP IRRIGATION VALVE, FILTER AND REGULATOR ASSEMBLY.**
- 3-5 GPM (3/4") - RAIN BIRD LOW FLOW CONTROL ZONE KIT (XCZ-075-PRF)
  - 3-15 GPM (1") - RAIN BIRD MEDIUM CONTROL ZONE KIT (XCZ-RPB-100-COM)
  - 15-40 GPM (1.5") - RAIN BIRD CONTROL ZONE KIT (XCZ-RPB-150-COM)
  - 40-60 GPM (1.5") - HUNTER DRIP ZONE KIT (CZ-151-40)
- DRIP EMITTER TUBING - 9 GPHX 12" EMITTER SPACING, AND 18" ROW SPACING.** PVC PIPE SUPPLY AND EXHAUST HEADERS WITH AIR RELEASE VALVES, AND AUTO FLUSH VALVES IN VALVE BOXES PER HIGH, LOW, AND END POINTS OF THE TUBING. PROVIDE A 12" POP-UP SPRAY HEAD WITH THE NOZZLE SHUT OFF AS A SYSTEM OPERATION INDICATOR. USE PVC PIPE TO, AND BETWEEN, EACH PLANTING AREA.
- NETAEM LINE-TECHLINE-ONL - 1 GPH - 12" OC, OR EQUAL.**
- HUNTER PLD-10-12 - 1 GPH - 12" EMITTER SPACING, OR EQUAL.**
- DENOTES TREE IN THIS AREA. REFER TO TREE DRIP COIL DETAIL
- DRIP EMITTER TUBING - 9 GPHX 12" EMITTER SPACING, AND 18" ROW SPACING.** PVC PIPE SUPPLY AND EXHAUST HEADERS WITH AIR RELEASE VALVES, AND AUTO FLUSH VALVES IN VALVE BOXES PER HIGH, LOW, AND END POINTS OF THE TUBING. PROVIDE A 12" POP-UP SPRAY HEAD WITH THE NOZZLE SHUT OFF AS A SYSTEM OPERATION INDICATOR. USE PVC PIPE TO, AND BETWEEN, EACH PLANTING AREA.
- HUNTER PLD-10-12 - 1 GPH - 12" EMITTER SPACING, OR EQUAL.**
- DENOTES TREE IN THIS AREA. REFER TO TREE DRIP COIL DETAIL
- SCHEDULE**
- SUGGESTED IRRIGATION SCHEDULES
- SHRUB DRIP ZONES - OPERATE 10 MINUTES TWO TIMES ON TWO DAYS OF THE WEEK PER LOCAL IRRIGATION SCHEDULING TIMETABLES TO APPLY .75" OF WATER IN A WEEK WITHOUT RAINFALL.
- SHRUB SPRAY ZONES - OPERATE 8 MINUTES TWO TIMES ON TWO DAYS OF THE WEEK PER LOCAL IRRIGATION SCHEDULING TIMETABLES TO APPLY .75" OF WATER A WEEK WITHOUT RAINFALL.
- TURF SPRAY ZONES - OPERATE 16 MINUTES TWO TIMES ON TWO DAYS OF THE WEEK PER LOCAL IRRIGATION SCHEDULING TIMETABLES TO APPLY 1.25" OF WATER A WEEK WITHOUT RAINFALL.
- SUGGESTED IRRIGATION SCHEDULE FOR THE FIRST SIXTY DAYS AFTER PLANTING FOR PLANT ESTABLISHMENT - INCREASE STATION RUN TIMES BY 3.5% AND ADD ONE EXTRA DAY OF IRRIGATION TO APPLY .50% EXTRA WATER A WEEK WITHOUT RAINFALL.
- INSTALLER SHALL ADJUST THIS SCHEDULE AS NEEDED ACCORDING TO ACTUAL FIELD CONDITIONS, CLIMATE AND PLANT WATER NEEDS.
- IF THIS SHEET IS LESS THAN 24" X 36" IT IS A REDUCED DRAWING**

**R. Miller Architecture, Inc.**  
 125 South Swcope Avenue  
 Suite 105  
 Maitland, Florida 32793  
 P-407 539 2412  
 F-407 539 2041  
 RMillerArchitecture.com

REV	DATE	REVISION
1	10.16.2017	CIVIL MODIFICATIONS
2	1.30.2018	CITY COMMENTS

**ZARABROOKE**  
 VICK & MARTIN STREET  
 APOPKA, FLORIDA

PROJECT:  
 DATE:  
 DRAWN BY:  
 CHECKED BY:  
 TITLE:  
 IRRIGATION PLAN  
 SCALE: AS NOTED  
 SHEET:  
**L-2**

# ALTA \ NSPS LAND TITLE SURVEY

## ZARABROOKE

SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST  
CITY OF APOPKA  
ORANGE COUNTY, FLORIDA

### Legal Description

THE SOUTH 198.00 FEET OF THE NORTH 3/4 OF THE EAST 1/2 OF THE NORTHEAST 1/4 OF SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; LESS THE WEST 12 FEET THEREOF AND LESS AND EXCEPT ROAD RIGHT-OF-WAY ON THE EAST.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE EAST 1/4 CORNER OF SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; THENCE RUN N 02°25'40"E ALONG THE EAST LINE OF NORTHEAST 1/4 SAID SECTION 5, A DISTANCE OF 663.59 FEET TO THE SOUTHEAST CORNER OF THE NORTH 3/4 OF THE NORTHEAST 1/4 OF SAID SECTION 5; THENCE RUN N 87°40'52"W ALONG THE SOUTH LINE OF SAID NORTH 3/4 A DISTANCE OF 80.00 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF VICK ROAD (80' RIGHT-OF-WAY) FOR A POINT OF BEGINNING; THENCE CONTINUE N 87°40'52"W ALONG SAID SOUTH LINE OF THE NORTH 3/4 OF THE NORTHEAST 1/4 OF AFORESAID SECTION 5 A DISTANCE OF 1228.88 FEET TO THE SOUTHEAST CORNER OF TRACT "E"; THE COURTYARDS PHASE TWO, AS RECORDED IN PLAT BOOK 31, PAGES 63 & 64, ORANGE COUNTY, FLORIDA; THENCE RUN N 02°21'04"E ALONG THE EAST LINE OF SAID "TRACT "E" 198.00 FEET TO THE SOUTHERLY LINE OF LOT 45, OF SAID "THE COURTYARDS PHASE TWO"; THENCE RUN S 87°40'52"E ALONG THE SOUTHERLY LINE OF LOTS 24 THRU 45, OF SAID "THE COURTYARDS PHASE TWO" 1229.14 FEET TO THE AFORESAID WESTERLY RIGHT-OF-WAY LINE OF VICK ROAD; THENCE RUN S 02°25'40"W ALONG SAID WESTERLY RIGHT-OF-WAY LINE 198.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 5.59 ACRES MORE OR LESS.

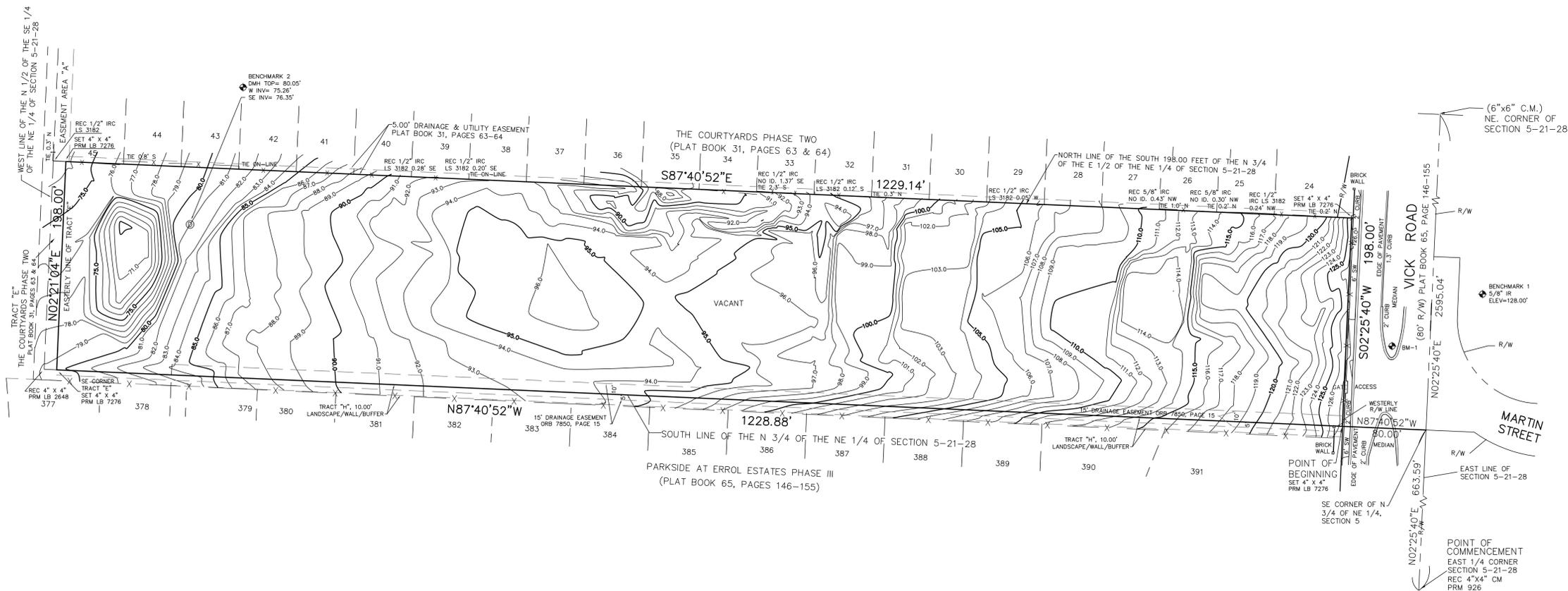
### Notes:

- Bearing structure is based on the East Line of the Northeast 1/4 of Section 5, Township 21 South, Range 28 East, Orange County, Florida; having an assumed bearing of North 02°25'40" East.
- This survey does not reflect or determine ownership.
- Underground improvements or underground foundations have not been located.
- According to the Federal Insurance Rate Map, this property lies in Zone "X", Map number 12095C01101, dated September 25, 2009.
- This property lies in Section 5, Township 21 S., Range 28 E., Orange County, Florida.
- Elevations and Contours are based on Orange County Benchmark, Designation Number S817002, having an Elevation of 108.912 feet (NAVD 88 datum).
- Contours are shown at 1.0 Foot intervals.
- No title commitment was provided to the surveyor at the time of survey.
- A new legal description was prepared for the subject property for plotting purposes.
- The new legal description is intended to describe the same property recorded in official records book 7704, page 4871, public records of Orange County, Florida.
- No zoning information was provided to the surveyor at the time of survey.
- There is a 15.00 drainage easement as recorded in official records book 7580, page 15, that affects subject property and is depicted hereon.
- Site address is 800 Vick Road, Apopka, Florida 32751.
- Subject property contains 5.59 acres of land plus or minus.
- There is no evidence of recent earth moving work, building construction or additions at the time of survey.
- The surveyor is not aware of proposed changes in street right of way lines and has not evidenced sidewalk or street construction.

### Legend:

- R/W Right-of-Way
- P.R.M. Permanent Reference Monument
- P.C.P. Permanent Control Point
- C.M. Concrete Monument
- R.L.S. Registered Land Surveyor
- TYP Typical
- UE Utilities Easement
- UFO Underground Fiber Optic
- SW Sidewalk
- BM Benchmark
- IR Iron Rod
- SV Sewer Valve
- WV Water Valve
- TR Telephone Riser
- LP Light Pole
- RWM Re-Use Water Main
- ER Electric Riser
- DMH DRAINAGE MANHOLE
- INV INVERT
- PVC POLYVINYL CHLORIDE PIPE
- RCP REINFORCED CONCRETE PIPE
- SSMH SANITARY SEWER MANHOLE
- CHBY CHINABERRY
- CMPH CAMPHOR
- C CENTERLINE
- ORB OFFICIAL RECORDS BOOK

### VICINITY MAP (NOT TO SCALE)



SHEET 1 OF 2  
SEE SHEET 2 FOR TREES & STRUCTURES

BOUNDARY & TOPOGRAPHICAL SURVEY  
OF  
ZARABROOKE  
FOR  
ZARABROOKE, LLC

**HLSM, LLC**  
Henrich-Luke-Saggarby-Menard  
Professional Surveyors & Mappers  
Licensed Business No. 7876  
794 Big Tree Drive, Suite 108  
Longwood, Florida 32750  
P. (407) 647-7346  
F. (407) 988-7166  
Surveyor@HLSM.US

REVISIONS

Rev. INVERT INFO	Date: 5-16-17
Rev. _____	Date: _____
Rev. _____	Date: _____
Rev. _____	Date: _____

THIS SURVEY MAP AND REPORT OR THE COPIES THEREOF ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

Job No: H-113	Field Date: 3/15/17	Drawn By: GJS	Scale: 1"=60'
Field Date: 3/15/17	Drawn By: GJS	Scale: 1"=60'	

William F. Menard  
Professional Surveyor & Mapper  
Florida Registration No. 5625

### SURVEYOR'S CERTIFICATE

To:  
ZARABROOKE, LLC

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes items 1, 2, 3, 4, 5, 8, 11, 13, 14, 16 and 17 of Table A thereof. The field work was completed on March 16, 2017.

Date of Map: April 13, 2017.

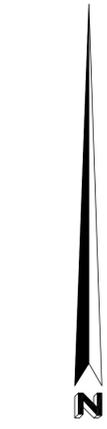
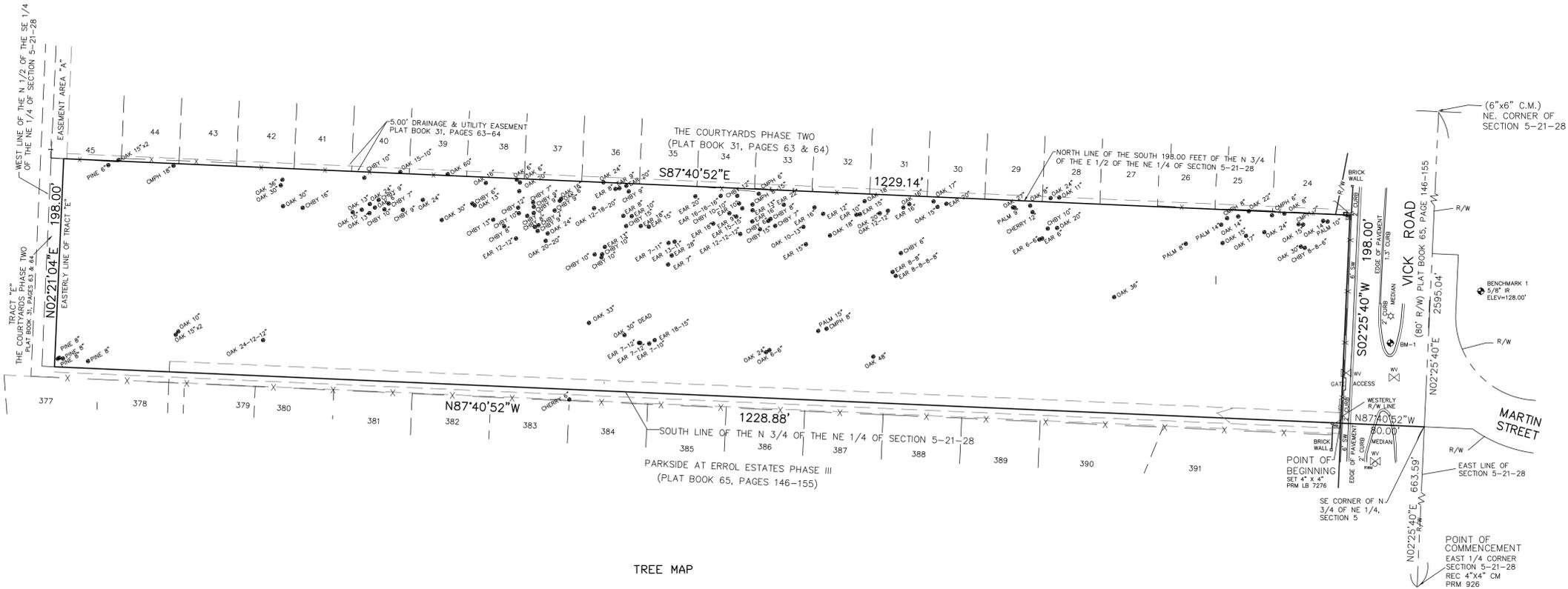
No. 155625

*William F. Menard*

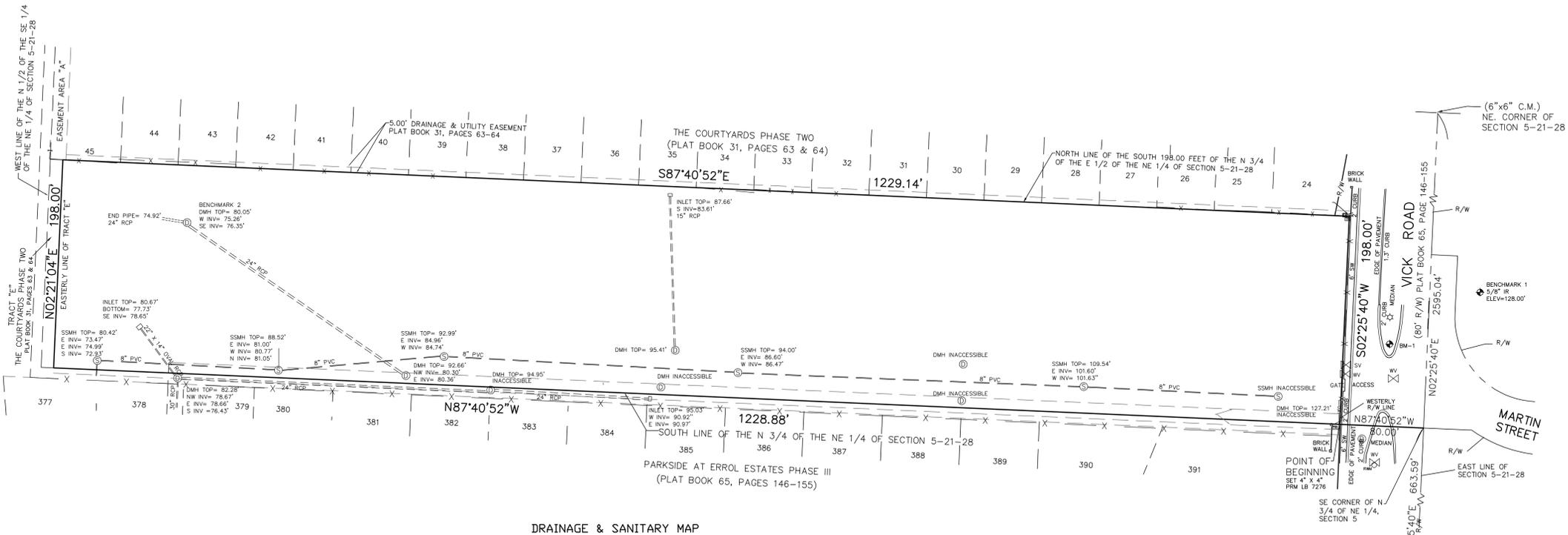
William F. Menard  
Professional Surveyor & Mapper  
Florida Registration No. 5625

# ALTA \ NSPS LAND TITLE SURVEY ZARABROOKE

SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST  
CITY OF AOPKA  
ORANGE COUNTY, FLORIDA



- Legend:**
- R/W Right-of-Way
  - P.R.M. Permanent Reference Monument
  - P.C.P. Permanent Control Point
  - C.M. Concrete Monument
  - R.L.S. Registered Land Surveyor
  - TYP Typical
  - UE Utilities Easement
  - UFO Underground Fiber Optic
  - SW Sidewalk
  - BM Benchmark
  - IR Iron Rod
  - SV Sewer Valve
  - WV Water Valve
  - TR Telephone Riser
  - LP Light Pole
  - OW Re-Use Water Main
  - ER Electric Riser
  - DMH DRAINAGE MANHOLE
  - INV INVERT
  - PVC POLYVINYL CHLORIDE PIPE
  - RCP REINFORCED CONCRETE PIPE
  - SSMH SANITARY SEWER MANHOLE
  - CHBY CHINABERRY
  - CMPH CAMPHER
  - CL CENTERLINE
  - ORB OFFICIAL RECORDS BOOK



SHEET 2 OF 2  
SEE SHEET 1 FOR BOUNDARY AND TOPOGRAPHICAL SURVEY

BOUNDARY & TOPOGRAPHICAL SURVEY  
OF  
ZARABROOKE  
FOR  
ZARABROOKE, LLC

**HLSM, LLC**  
Henrich-Lucas-Swagerty-Menard  
Professional Surveyors & Mappers  
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794 Big Tree Drive, Suite 108  
Longwood, Florida 32750  
P. (407) 647-7346  
F. (407) 988-7166  
Survey@HLSM.US

REVISIONS	
Rev. INVERT INFO	Date: 5-16-17
Rev. _____	Date: _____
Rev. _____	Date: _____
Rev. _____	Date: _____

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Job No: H-113  
Field Date: 3/15/17  
Drawn By: GJS  
Field By: WKP/JH  
Scale: 1"=60'

# ZARABROOKE

SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST  
CITY OF APOPKA  
ORANGE COUNTY, FLORIDA

## ZARABROOKE DEDICATION

KNOWN TO ALL MEN BY THESE PRESENTS. That the undersigned, are the lawful owners in fee simple of the lands described in the caption of this Plat, hereby dedicates said lands and plot for the uses and purposes therein expressed and dedicates the STREETS AND EASEMENTS shown hereon to the perpetual use of the public and the City of Apopka,

IN WITNESS WHEREOF, said Declarant has caused these presents to be executed by the undersigned Owner, thereunto duly authorized on this \_\_\_\_\_ day of \_\_\_\_\_, 2018.

Zarabrooke, LLC

By: Barry Kalmanson, Owner

Signature \_\_\_\_\_

Signed, sealed and delivered in the presence of the following witnesses:

Signature of Witness \_\_\_\_\_ Signature of Witness \_\_\_\_\_

Printed Name of Witness \_\_\_\_\_ Printed Name of Witness \_\_\_\_\_

STATE OF FLORIDA COUNTY OF \_\_\_\_\_

The foregoing Dedication was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2018 by \_\_\_\_\_ Zarabrooke, LLC, on behalf of said company. He is personally known to me or has produced \_\_\_\_\_ as identification, and did (did not) take an oath that he is the person described in and who executed the foregoing dedication and severally acknowledged the execution thereof to his free act and deed.

IN WITNESS WHEREOF, I have hereto set my hand and seal on the above date.

Notary Public - State of Florida

Commission No.: \_\_\_\_\_

My Commission Expires: \_\_\_\_\_ NOTARY SEAL

## CERTIFICATE OF APPROVAL BY CITY COUNCIL

THIS IS TO CERTIFY, That on \_\_\_\_\_ the foregoing plat was approved by City Council.

Mayor \_\_\_\_\_  
Attest: \_\_\_\_\_  
City Clerk \_\_\_\_\_ By: \_\_\_\_\_ D.C.

## CERTIFICATE OF SURVEYOR

I hereby certify that this plat is a true and correct representation of the lands surveyed, that the survey was made under my responsible direction and supervision, and that the survey data contained herein complies with all of the requirements of Chapter 177 of the Florida Statutes. I further certify that I have complied with the requirements of Chapter 177.091(7) regarding "permanent reference monuments", and that the land is located within Orange County, Florida.

Dated: \_\_\_\_\_  
Signature: \_\_\_\_\_  
WILLIAM F. MENARD H L S M, LLC  
Registration No. 5625 HENRICH-LUKE-SWAGGERTY-MENARD  
794 Big Tree Drive, Suite 108  
Longwood, Florida 32750  
Certificate of Authorization No. 7276

## CERTIFICATE OF REVIEW BY CITY SURVEYOR

This Plat has been reviewed for conformity with chapter 177, Florida Statutes.

REVIEWED BY: \_\_\_\_\_  
Date \_\_\_\_\_

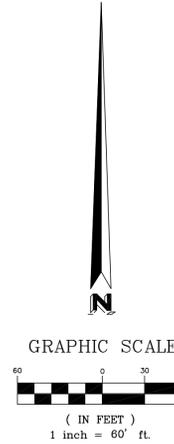
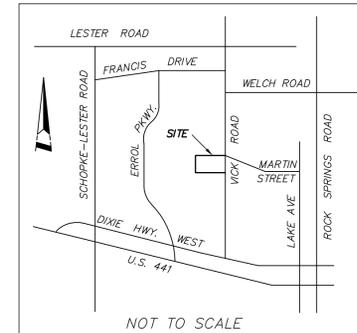
## CERTIFICATE OF APPROVAL BY PLANNING COMMISSION

Examined and Approved.  
Chairman \_\_\_\_\_ Date \_\_\_\_\_

## CERTIFICATE OF APPROVAL BY CITY ENGINEER

Examined and Approved.  
City Engineer \_\_\_\_\_ Date \_\_\_\_\_

VICINITY MAP  
(NOT TO SCALE)



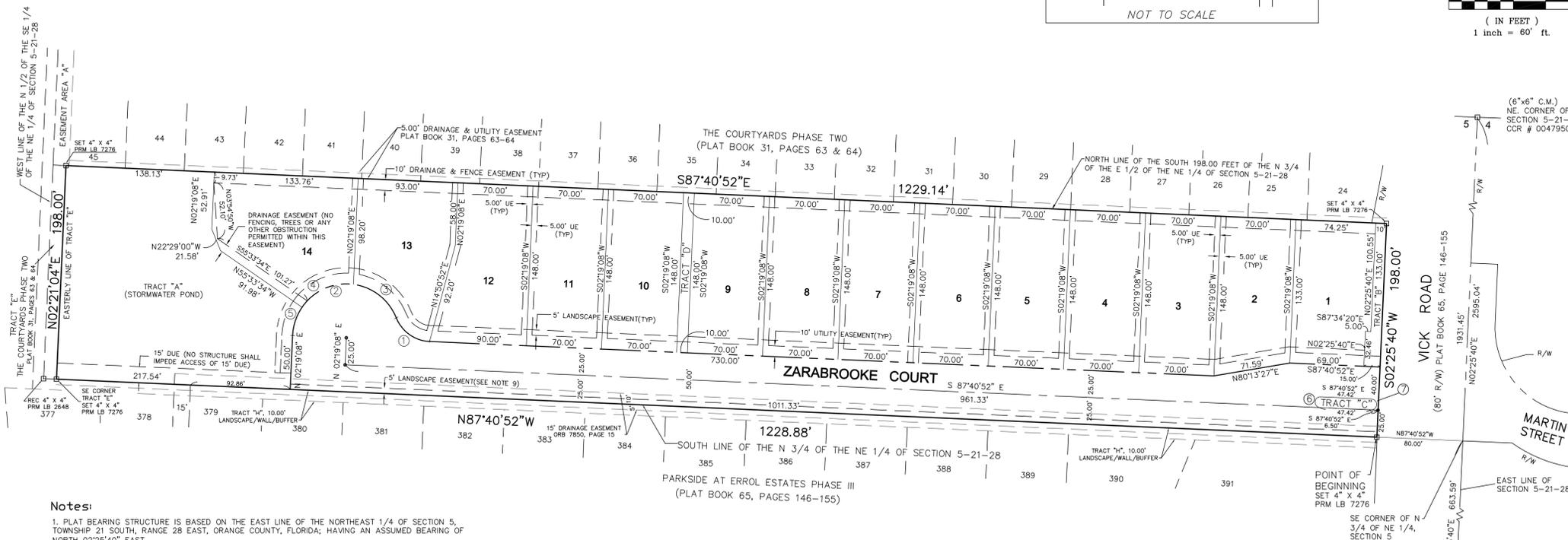
### Legal Description

THE SOUTH 198.00 FEET OF THE NORTH 3/4 OF THE EAST 1/2 OF THE NORTHEAST 1/4 OF SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; LESS THE WEST 12 FEET THEREOF AND LESS AND EXCEPT ROAD RIGHT-OF-WAY ON THE EAST.

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CONTAINING 5.59 ACRES MORE OR LESS.



### Notes:

- PLAT BEARING STRUCTURE IS BASED ON THE EAST LINE OF THE NORTHEAST 1/4 OF SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; HAVING AN ASSUMED BEARING OF NORTH 02°25'40" EAST.
- TRACT "A" IS FOR STORMWATER RETENTION PURPOSES OWNED AND MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.
- TRACT "B" IS FOR LANDSCAPE/WALL PURPOSES OWNED AND MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.
- TRACT "C" IS FOR A LANDSCAPED ISLAND OWNED AND MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.
- TRACT "D" IS A DRAINAGE TRACT OWNED AND MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.
- ALL PLATTED UTILITY EASEMENTS HEREBY PROVIDE THAT SUCH EASEMENTS SHALL ALSO BE EASEMENTS FOR THE CONSTRUCTION, INSTALLATION, MAINTENANCE, AND OPERATION OF CABLE TELEVISION SERVICES SUBJECT TO STATUTORY LIMITATIONS THEREON.
- VEHICULAR ACCESS RIGHTS (INGRESS/EGRESS) OFF ZARABROOKE COURT RIGHT-OF-WAY SHALL BE DEDICATED TO THE CITY OF APOPKA, AS APPROVED BY THE CITY ENGINEER.
- THE 5 FOOT WIDE LANDSCAPE EASEMENT IS FOR THE MAINTENANCE AND PROTECTION OF STREET TREES BY THE HOME OWNER'S ASSOCIATION.
- THE 5 FOOT WIDE LANDSCAPE EASEMENT ALONG THE SOUTH BOUNDARY OF THIS PLAT IS TO BE MAINTAINED BY THE HOME OWNER'S ASSOCIATION.
- THE 10 FOOT WIDE FENCE EASEMENT ALONG LOTS 1-14 IS FOR THE PROTECTION AND MAINTENANCE OF THE FENCE BY THE HOME OWNER'S ASSOCIATION.
- SUBJECT PROPERTY FORMERLY KNOWN AS PARADISO PARK, AN UNPLATTED SUBDIVISION.
- A 15 FOOT DRAINAGE EASEMENT RECORDED IN OFFICIAL RECORDS BOOK 7850, PAGE 15 AFFECTS THIS PROPERTY AND IS DEPICTED HEREON.

CURVE DATA						
No.	RADIUS	DELTA	LENGTH	TANGENT	CHORD	CHORD BEARING
1	35.00'	65°41'03"	40.12'	22.59'	37.96'	N54°50'20"W
2	50.00'	155°41'03"	135.86'	232.09'	97.76'	N80°09'40"E
3	50.00'	60°34'01"	52.85'	28.20'	50.43'	N52°16'49"E
4	50.00'	62°59'44"	54.97'	30.64'	52.25'	S65°56'18"W
5	50.00'	32°07'18"	28.03'	14.39'	27.67'	S18°22'47"W
6	5.00'	180°00'00"	15.71'	---	10.00'	N02°19'08"E
7	5.00'	180°00'00"	15.71'	---	10.00'	S02°19'08"W

### Legend:

- R/W RIGHT-OF-WAY
- P.R.M. PERMANENT REFERENCE MONUMENT
- P.C.P. PERMANENT CONTROL POINT
- C.M. CONCRETE MONUMENT
- R.L.S. REGISTERED LAND SURVEYOR
- TYP TYPICAL
- UE UTILITIES EASEMENT
- IR IRON ROD
- ORB OFFICIAL RECORDS BOOK
- DUE DRAINAGE & UTILITY EASEMENT
- CL CENTERLINE
- SET NAIL & DISK PCP LB 7276
- SET 4" X 4" CONCRETE MONUMENT PRM 7276

**NOTICE:**  
THIS PLAT, AS RECORDED IN ITS GRAPHIC FORM, IS THE OFFICIAL DEPICTION OF THE SUBDIVIDED LANDS DESCRIBED HEREIN AND WILL IN NO CIRCUMSTANCES BE SUPPLANTED IN AUTHORITY BY ANY OTHER GRAPHIC OR DIGITAL FORM OF THE PLAT. THERE MAY BE ADDITIONAL RESTRICTIONS THAT ARE NOT RECORDED ON THIS PLAT THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY.

## CERTIFICATE OF COUNTY COMPTROLLER

I HEREBY CERTIFY, That I have examined the foregoing plat and find that it complies in form with all the requirements of Chapter 177, Florida Statutes, and was filed for record on \_\_\_\_\_ at \_\_\_\_\_ File No. \_\_\_\_\_

County Comptroller  
in and for Orange County, Florida

BY \_\_\_\_\_ D.C.

**HLSM, LLC**  
Henrich-Luke-Swaggerty-Menard  
Professional Surveyors & Mappers  
Licensed Business No. 7276  
794 Big Tree Drive, Suite 108  
Longwood, Florida 32750  
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